SECTION G

CONTINGENCY PLAN

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SECTION G – CONTINGENCY PLAN

G-1 Contingency Plan [40 *Code of Federal Regulations* (CFR) §270.14(b)(7)]

The Kansas hazardous waste program requires a Part B Permit applicant to submit a Contingency Plan in order to minimize hazards to human health or the environment, due to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water. 40 CFR §264.51(a) states the provisions of the contingency plan must be carried out immediately wherever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human or the environment [40 CFR §264.51(b)]. The contingency plan must describe the actions facility personnel must take to comply with Sections 264.51 – Purpose and Implementation of Contingency Plan and 264.56 – Emergency Procedures in response to fire, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility. These requirements are fully described in 40 CFR §270.14 (with the exception of the exclusions and modifications noted in *Kansas Administrative Regulations* (KAR) 28-31-270), 264.51 through 264.56, 264.171, 264.194(c), 264.227, and 264.255.

40 CFR §264.52(b) states: "If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with Part 112 of this Chapter, or Part 1510 of Chapter V, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this part." The purpose of this section is to reference existing documents which fulfill the requirements of an RCRA Hazardous Waste Contingency Plan and to document additions necessary to ensure compliance with the regulations.

A facility-wide Oils, Hazardous Wastes, and Hazardous Substances Spill Control and Contingency plan has been prepared and is submitted as Appendix G-1. Table G-1 provides a copy of the distribution list of the SPCC Plan.

G-2 Emergency Coordinators [40 CFR §270.14(b)(7) and 264.52(d); 264.55]

The emergency coordinators are identified in the Appendix XII in the contingency plan (Appendix G-1).

G-3 Implementation [40 CFR §270.14(b)(7) and 264.52(a); 264.56(d)]

The implementation of the contingency plan is described in Section III of the plan (Appendix G-1).

G-4 Emergency Actions [40 CFR §270.14(b)(7) and 264.56]

The emergency actions for the facility are described in Section III of the contingency plan (Appendix G-1).

G-4a Notification [40 CFR §270.14(b)(7) and 264.56(a)]

The procedures for notification of emergency personal, plant staff and regulatory agencies is described in Section III of the contingency plan (Appendix G-1).

G-4b Identification of Hazardous Materials [40 CFR §270.14(b)(7) and 264.56(b)]

The procedures to identify the hazardous materials released during the emergency are provided in Section III of the contingency plan (Appendix G-1).

G-4c Assessment [40 CFR §270.14(b)(7) and 264.56(c),(d)]

The procedures to assess the hazardous materials released and to identify the appropriate management procedures during the emergency are provided in Section III of the contingency plan (Appendix G-1).

G-4d Control Procedures [40 CFR §270.14(b)(7) and 264.52(a)]

The control procedures during the emergency are provided in Section III of the contingency plan (Appendix G-1).

G-4e Prevention of Recurrence or Spread of Fires, Explosions, or Releases [40 CFR §270.14(b)(7) and 264.56(e)]

The procedures to prevent the recurrence or the spread of fires, explosions or releases during the emergency are provided in Section III of the contingency plan (Appendix G-1).

G-4e(1) Monitor for Leaks, Pressure Buildup, Gas Generation or Ruptures of Released Material [40 CFR §270.14(b)(7) and 264.56(f)]

The procedures to monitor for leaks, gas generation or ruptures of released during the emergency are provided in Section III of the contingency plan (Appendix G-1).

G-4f Storage, Treatment, and Disposal of Released Material [40 CFR §270.14(b)(7) and 264.56(g)]

The procedures to manage hazardous materials released during the emergency via storage, treatment or disposal are provided in Section III of the contingency plan (Appendix G-1).

G-4g Incompatible Waste [40 CFR §270.14(b)(7) and 264.56(h)(1)]

The procedures to identify and manage incompatible hazardous materials released during the emergency are provided in Section III of the contingency plan (Appendix G-1).

G-4h Post-Emergency Equipment Management [40 CFR §270.14(b)(7) and 264.56(h)(2)]

The procedures to manage equipment after an incident are provided in Section III of the contingency plan (Appendix G-1).

G-4h(1) Notification of Federal, State and Local Authorities before Resuming Operations [40 CFR §270.14(b)(7) and 264.56(i)]

The procedures to notify federal, state, and local authorities before resuming operations are provided in Section III of the contingency plan (Appendix G-1).

G-4i Container Spills and Leakage [40 CFR §270.14(b)(7) and 264.52; 264.71]
The management of spills and leakage from containers during an emergency are provided in Section III in the contingency plan (Appendix G-1).

G-4j Tank Spills and Leakage [40 CFR §270.14(b)(7) and 264.196]

Not applicable, no hazardous waste management tanks on site.

G-4j(1) Stopping Waste Addition [40 CFR §270.14(b)(7) and 264.196(a)]

Not applicable, no hazardous waste management tanks on site.

G-4j(2) Removing Waste [40 CFR §270.14(b)(7) and 264.196(b)]

Not applicable, no hazardous waste management tanks on site.

G-4j(3) Containment of Visible Releases [40 CFR §270.14(b)(7) and 264.196(c)]

Not applicable, no hazardous waste management tanks on site.

G-4j(4) Notification Reports [40 CFR §270.14(b)(7) and 264.196(d)]

Not applicable, no hazardous waste management tanks on site.

G-4j(5) Provisions of Secondary Containment, Repair, or Closure [40 CFR §270.14(b)(7) and 264.196(e)]

Not applicable, no hazardous waste management tanks on site.

G4-k Surface Impoundment Spills and Leakage [40 CFR §270.14(b)(7) and 264.227]

Not applicable, no surface impoundments on site.

G4-k(1) Emergency Repairs [40 CFR §270.14(b)(7) and 264.227]

Not applicable, no surface impoundments on site.

G4-k(1)(a) Stopping Waste Addition [40 CFR §270.14(b)(7) and 264.227(b)(1)]

Not applicable, no surface impoundments on site.

G4-k(1)(b) Containing Leaks [40 CFR §270.14(b)(7) and 264.227(b)(2)]

Not applicable, no surface impoundments on site.

G4-k(1)(c) Stopping Leaks [40 CFR §270.14(b)(7) and 264.227(b)(3)]

Not applicable, no surface impoundments on site.

G4-k(1)(d) Preventing Catastrophic Failure [40 CFR §270.14(b)(7) and 264.227(b)(4)]

Not applicable, no surface impoundments on site.

G4-k(1)(e) Emptying the Impoundment [40 CFR §270.14(b)(7) and 264.227(b)(5)]

Not applicable, no surface impoundments on site.

G4-k(2) Certification [40 CFR §270.14(b)(7); 264.226 (c) and 264.227(d)(1)]

Not applicable, no surface impoundments on site.

G4-k(3) Repairs as a Result of Sudden Drop [40 CFR §270.14(b)(7) and 264.227(d)(2)]

Not applicable, no surface impoundments on site.

G4-k(3)(a) Existing Portions of Surface Impoundment [40 CFR §270.14(b)(7) and 264.227(d)(2)(i)]

Not applicable, no surface impoundments on site.

G4-k(3)(b) Other Portions of the Surface Impoundment [40 CFR §270.14(b)(7) and 264.227(d)(2)(ii)]

Not applicable, no surface impoundments on site.

G4-l Containment Building Leaks [40 CFR §270.14(b)(7) and 264.1101(c)(3)]

Not applicable, no containment buildings on site.

G-4l(1) Repair of Containment Building [40 CFR §270.14(b)(7) and 264.1101(c)(3)]

Not applicable, no containment buildings on site.

G-4l(2) Certification Following Repair [40 CFR §270.14(b)(7) and 264.1101(c)(3)(iii)]

Not applicable, no containment buildings on site.

G-4m Drip Pad Spills and Leakage [40 CFR §270.14(b)(7) and 264.573(m)]

Not applicable, no drip pads on site.

G-4m(1) Stopping Waste Addition [40 CFR §270.14(b)(7) and 264.573(m)(1)(ii)]

Not applicable, no drip pads on site.

G-4m(2) Determine Appropriate Cleanup and Repair [40 CFR §270.14(b)(7) and 264.573(m)(1)(iii)]

Not applicable, no drip pads on site.

G-4m(3) Notification [40 CFR §270.14(b)(7) and 264.573(m)(1)(iv)]

Not applicable, no drip pads on site.

G-4m(4) Certification [40 CFR §270.14(b)(7) and 264.573(m)(3)]

Not applicable, no drip pads on site.

G-5 Emergency Equipment [40 CFR §270.14(b)(7) and 264.52(e)]

The emergency equipment available to respond to an emergency are described in Section III and Appendices XI and XX of the contingency plan (Appendix G-1).

G-6 Arrangements with Local Authorities [40 CFR §270.14(b)(7) and 264.37; 264.52(c)]

The arrangement with the local emergency response agencies and authorities is described in Section III of the contingency plan (Appendix G-1).

G-7 Evacuation Plan for Facility Personnel [40 CFR §270.14(b)(7) and 264.52(f)]

The evacuation plans for facility personnel are described in Section III and Appendices XVI, XVII, and XIX of the contingency plan (Appendix G-1).

G-8 Required Report Procedures for Recordkeeping and Reporting to Kansas Department of Health and Environment [40 CFR §270.14(b)(7) and 264.56(j)]

The required reporting procedures are described in Section III of the contingency plan (Appendix G-1).

G-9 Location and Distribution of Contingency Plan [40 CFR §270.14(b)(7) and 264.53]

The location and distribution of the contingency plan is described in Section III of the contingency plan (Appendix G-1).

TABLE G-1

SPCCP Distribution List

Receiver	Number of Copies
Director of Facilities Operations	3
Maintenance Supervisor	3
Warehousing & Assets Department	3
Production Line Supervisor	1
Project Engineer (Environmental Eng. Dept.)	1
Industrial Safety Specialist	1
Human Resources Generalist	1
Guard Department	1
EPA Region VII	1
KDHE	1
Parsons Fire Department	1
Neosho Township Fire Department	1
Oswego Kansas Fire Department	1
Labette Health	1
Labette County Sheriff	1
Kansas Highway Patrol	1
Labette County Emergency Communications	1
Labette County Emergency Management	1

APPENDIX G-1

OILS, HAZARDOUS WASTES, AND HAZARDOUS SUBSTANCES SPILL CONTROL AND CONTINGENCY PLAN

OILS, HAZARDOUS WASTES, AND HAZARDOUS SUBSTANCES

SPILL CONTROL AND CONTINGENCY PLAN

DAY & ZIMMERMANN KANSAS LLC at the GREAT PLAINS INDUSTRIAL PARK

Operated by

DAY & ZIMMERMANN KANSAS LLC

Submitted by

Facilities Operations

APPROVAL:

Jerry Galloway

Jerry Galloway
Director of Facilities Operations

7-22-2015
DATE

OILS, HAZARDOUS WASTES, AND HAZARDOUS SUBSTANCES

SPILL CONTROL AND CONTINGENCY PLAN

DAY & ZIMMERMANN KANSAS LLC at the **GREAT PLAINS INDUSTRIAL PARK**

Operated by

DAY & ZIMMERMANN KANSAS LLC

This Plan contains the Spill Prevention Control and Countermeasures (SPCC) Plan and the Installation Spill Contingency Plan (ISCP).

I hereby certify that my agent or I have examined the facilities on the installation, and being familiar with the provisions of Title 40 CFR 110, 112, 116, 117, and 302, attest that this Oils, Hazardous Wastes, and Substances Spill Control and Contingency Plan has been prepared in accordance with good engineering practices.

Robert E. Monnig, PE
Licensed Professional Engineer No. 19115
State of Kansas

OILS, HAZARDOUS WASTES, AND HAZARDOUS SUBSTANCES

SPILL CONTROL AND CONTINGENCY PLAN

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OILS, HAZARDOUS WASTES, AND HAZARDOUS SUBSTANCES

SPILL CONTROL AND CONTINGENCY PLAN

I. GENERAL PLANT OVERVIEW

A. INTRODUCTION

The Day & Zimmermann Kansas LLC Facility located at the Great Plains Industrial Park has the potential for the accidental discharge of oils, hazardous wastes, and hazardous substances. Such discharges could occur during transportation, storage, or use of substances. This plan encompasses the Spill Prevention Control and Countermeasures (SPCC) Plan, the Installation Spill Contingency (ISC) Plan, and the Hazardous Waste Inspection (HWI) Plan. These plans are required by Title 40 CFR, Part 112 Environmental Protection Agency Regulations on Oil Pollution Prevention; the Federal Water Pollution Control Act (FWPCA), as amended by the Clean Water Act (CWA) of 1977 (33 U.S.C. 1251 et. seq.); Title 40 CFR, Part 761, Environmental Protection Agency Regulations for Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions for Polychlorinated Biphenyls under the Toxic Substances Control Act; and Kansas Administrative Regulations (KAR)28-31- 264 Regulations for Owners and Operators of Permitted Hazardous Waste Facilities; respectively.

It is the intent of Day & Zimmermann Kansas LLC to minimize the possibility of spills of oils, hazardous substances and hazardous waste to prevent detrimental environmental consequences of spills from occurring. The Day & Zimmermann Kansas LLC Plan outlines in detail the spill prevention procedures, and in the event of leaks or spills, recognition, reporting, containment, and notification procedures.

This plan has been developed to describe actions to be taken in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at this facility.

B. PURPOSE

Title 40 CFR, Part 112, requires owners or operators of onshore facilities to prepare an SPCC Plan whenever they have discharge or, due to their location, could reasonably be expected to discharge oil in harmful quantities into or upon the navigable waters of the United States or adjoining shorelines.

Title 40 CFR, Part 761 requires that all PCB Transformers (including PCB transformers in storage for reuse) be registered with fire response personnel with primary jurisdiction (that is, the fire department or fire brigade which would normally be called upon for the initial response to a fire involving equipment).

KAR 28-31-264 of the Kansas hazardous waste program, requires owners and operators of hazardous waste facilities to prepare a contingency plan to minimize hazards to human health or the environment

from fires, explosions, and any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water. Kansas hazardous waste program also requires the owner or operator to develop and follow a written schedule for monitoring equipment and structures that are important in preventing, detecting, or responding to environmental or human health hazards.

C. REQUIREMENTS FOR PREPARATION AND IMPLEMENTATION

1. Title 40 CFR, Part 112 states that the SPCC Plan will:

    a. Be reviewed and certified by a registered Professional Engineer (PE). After on-site examination of the facility and familiarity with Title 40 CFR, Part 112, the PE will certify that the plan was prepared in accordance with sound engineering practices.

    b. Have original and changes maintained current and reviewed by a registered PE and made available for on-site review by the EPA Regional Administrator at the Environmental Engineering Department.

    c. Be reviewed and updated whenever there is a change in facility design, construction, plant operations, or plant maintenance which materially affects the facility's potential for discharge of oil or hazardous substances into or upon navigable waters.

    d. Be reviewed and evaluated annually and, if necessary, prepare updates and/or amendments to include more effective prevention and control technology if such technology:

        (1) Will significantly reduce the likelihood of a spill event from the facility.

        (2) Has been field-proven at the time of the review.

2. KAR 28-31-264.51 states that the contingency plan will:

    a. Be designed to minimize hazards to human health or the environment.

    b. Be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

3. Amendments are not effective unless they have been certified by a PE.

D. APPLICABILITY

According to 40 CFR, Part 112, installations will prepare and implement a current SPCC Plan when their oil or hazardous substances storage facilities meet any one of the following:

1. Aggregate aboveground oil storage, at any one location on the installation, is greater than 1,320 gallons.
2. Any single aboveground oil storage tank, at any one location on the installation, is greater than 660 gallons.
3. Total underground oil storage, at any one location on the installation, is greater than 42,000 gallons.
4. One (or more) hazardous substance is stored in quantities that would present a threat to human health or the environment if release should occur.
5. Non-transportation-related onshore and offshore facilities which, because of their location or operations, could reasonably be expected to discharge oil or hazardous substances in harmful quantities into or upon navigable water of the United States.

According to KAR 28-31-264.50, owners and operators of all hazardous waste facilities will prepare, maintain, and implement a current contingency plan for the facility.

E. REVIEW AND CERTIFICATION

The D&Z Environmental Engineering Department will assemble the necessary information referenced in the SPCC Plan and any other pertinent information. Both a registered PE and the Director of Facilities Operations will review the SPCC Plan and the other pertinent documents in the context of Title 40 CFR, Part 112, and examine the facility involved. If the SPCC Plan is deemed adequate, the registered PE will certify the SPCC Plan by signature and the SPCC Plan will be routed for approvals. If the SPCC Plan is deemed deficient, the plan will be revised by the D&Z Environmental Engineering Department in a manner acceptable to the registered PE.

F. DEFINITIONS

1. Discharge: Any release including spilling, leaking, pumping, pouring, emitting, emptying, injecting, escaping, leaching, dumping, or disposing into the environment; but excludes release within a workplace, emissions from engine exhausts, releases of nuclear material from nuclear incidents or processing sites, and normal application of fertilizer.
2. Discharge Classification: The following classifications serve as criteria for reporting and general response actions. They are not meant to imply or connect associated degree of hazard to the public health or welfare, or a measure of environmental damage.
    a. *Minor Discharge*: A discharge of less than 1,000 gallons of oil or less than one pound of a hazardous substance.

b. *Medium Discharge*: A discharge of 1,000 to 10,000 gallons of oil, or a discharge of a hazardous substance in a harmful quantity as defined in EPA or Army Regulations.

c. *Major Discharge*: A discharge of more than 10,000 gallons of oil, or a discharge of a hazardous substance that poses a substantial threat to the public health or welfare.

3. Environment: Navigable waters, near-shore and open waters, and any other surface water, groundwater, drinking water supply, land surface or subsurface strata, or ambient air within the United States.

4. Facility: Any building, structure, installation, equipment, pipe, well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft as well as any site or area where a hazardous substance has been deposited, stored, disposed of, placed, or otherwise come to be located.

5. Harmful Discharges: Discharge of such quantities of oil to navigable waters or shorelines which:

   a. Violate applicable water quality standards; or

   b. Cause a film of sheen or discoloration of the surface of the water or adjoining shorelines, or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines; are harmful discharges. [Harmful discharges of hazardous waste are fire, explosions, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.]

6. Hazardous Material: An element, compound, or mixture (other than oil which, when discharged in any quantity onto land or into or upon navigable waters, presents an imminent and substantial danger to the public health or welfare, including fish, shellfish, wildlife, shorelines, and beaches (e.g., hazardous materials include strong acids, strong bases, potentially toxic pesticides, or other bulk-stored chemicals used in manufacturing processes and maintenance or repair operations).

7. Hazardous Substance: This term is used herein to denote both hazardous materials and hazardous wastes.

8. Hazardous Waste (HW): Any solid, liquid, semi-solid, or contained gaseous materials resulting from industrial, commercial, mining, or agricultural operations, or from community activities which is discarded or is being accumulated, stored, or physically, chemically, or biologically treated prior to being discarded; or has served its original intended use; or is a manufacturing or mining by-product which is specifically listed in the Kansas hazardous waste program or exhibits characteristics of ignitability, corrosivity, reactivity, or toxicity as defined by the Kansas hazardous waste program. [HW listed on the Day & Zimmermann Kansas LLC hazardous waste program HW Permit are Freon, Toluene, acetone, alcohol, petroleum naptha, multilith electrostatic solution, waste explosives, sludges from explosive treatment sumps and spent carbon columns, Adsolv 744, spent stencil ink (2-Ethoxyethanol), spent lacquer (naptha), formaldehyde, hexachlorophene, and paint sludge].

9. Hazardous Waste Treatment, Storage, and Disposal Facility: A treatment facility is any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any HW to neutralize such waste, or to recover energy or

material resources from the waste, or to render such waste non-hazardous, or less hazardous; safer to transport, store, or reduce in volume. Storage facilities are any means of holding HW for a temporary period, at the end of which the HW is treated, disposed of, or stored elsewhere. Disposal Facilities are areas at which HW is intentionally placed into or on any land or water, and at which waste will remain after closure. The HW treatment and storage facilities on-plant include the HW Storage Igloos and Demolition Grounds.

10. Inland Waters: Generally those waters upstream from coastal waters.

11. Installation On-Scene Coordinator (IOSC): The official, designated by the company, who coordinates and directs control and cleanup efforts at the scene of an oil or hazardous substance discharge on an installation.

12. Installation Response Team (IRT): Those collective individuals, on an installation, designated to act in an emergency to perform those functions as directed by the IOSC.

13. Navigable Waters of the United States: "Navigable waters," as defined in Section 502 (7) of the Federal Water Pollution Control Act (FWPCA) are:

    a. All navigable waters of the United States, as defined in judicial decisions prior to passage of the 1972 Amendments to the FWPCA and tributaries of such waters.

    b. Interstate waters.

    c. Interstate lakes, rivers, and streams which are utilized by Interstate travelers for recreational or other purposes; and

    d. Interstate lakes, rivers and streams from which fish or shellfish are taken and sold in interstate commerce.

14. Non-Transportation-Related Facilities: Includes, but is not limited to: Oil and hazardous substances storage facilities and related equipment and appurtenances, as well as fixed bulk plant storage, terminal oil and hazardous substances storage facilities, consumer storage, pumps, and drainage systems used in the storage of oil and hazardous substances. These facilities include:

    a. Waste treatment facilities including in-plant pipelines, effluent discharge lines, and storage tanks.

    b. Loading racks, transfer hoses, loading arms and other equipment which are appurtenant to a non-transportation-related facility or terminal facility and which are used to transfer oil and hazardous substances in bulk to or from highway vehicle or railroad cars.

    c. Highway vehicles and railroad cars which are being used for the transport of oil and hazardous substances exclusively within the confines of a non-transportation-facility and which are not intended to transport oil and hazardous substances in interstate and interstate commerce.

    d. Pipeline systems which are used for the transport of oil and hazardous substances exclusively within the confines of a non-transportation-related facility and which are not

intended to transport oil and hazardous substances in interstate or intrastate commerce, but excluding pipeline systems used to transfer oil and hazardous substances in bulk to or from a vessel.

15. Oil: Oil of any kind or in any form, including but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil.

16. Oil Storage Facility: For purposes of an SPCC Plan, the term "oil storage facilities" will include, but not be limited to: Storage for a facility such as a heating or boiler plant, electric generating unit, fuel dispensing or transfer facility, tank car or truck loading/unloading rack, bulk fuel storage, etc.

17. Potential Discharge: An incident or circumstance which threatens to result in the discharge of oil or a hazardous substance.

18. Sheen: An iridescent appearance on the surface of water.

19. Sludge: An aggregate of oil or a hazardous substance and other matter of any kind having a combined specific gravity equivalent to or greater than water.

20. Spill Event: A discharge of oil or hazardous substance on land or into or upon the navigable waters of the United States or adjoining shorelines in harmful quantities. For oil, a harmful quantity is that oil in excess of established State Water Quality Standards; or that which causes a film, sheen, or discoloration on the surface of the water or adjoining shorelines; or quantities in excess of 1,000 U.S. gallons on land. For other hazardous substances, quantity guidelines will be as specified by the EPA.

21. Toxic Pollutant: Those pollutants or combinations of pollutants, including disease causing agents, which after discharge and upon exposure, ingestion, inhalation, or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction), or physical deformation in such organisms or their offspring.

G. MISSION

1. At this time the mission of the facility has been established, and is detailed in the guidelines listed in Appendix XVIII of this spill plan. Production contracts are currently the lifeblood of this installation, and it appears that this pattern will continue in the future. Additional planning and implementation of plant duties and future workload will be developed by Day & Zimmermann Kansas LLC.

H. INSTALLATION DESCRIPTION

1. Location in the County and State:

   a. The Day & Zimmermann Kansas LCC facility is located in the northeast corner of Labette County, Kansas. The extreme northern boundary of the Plant is three and five-eighths miles south of the northern boundary of the County. The extreme western boundary of the plant is 16 miles east of the western boundary of the County. The extreme southern boundary of the Plant is 17.25 miles north of the southern boundary of the County, and the extreme eastern boundary of the Plant is approximately three and three-quarters miles west of the eastern boundary of the County. Day & Zimmermann, Inc., (D&Z), Drawing Number A-GEN-68, Orientation Map, is enclosed as Appendix I.

   b. The major cities located nearest the Plant are Tulsa, Oklahoma, 85 miles south-southwest; Wichita, Kansas, 116 miles west-northwest; Kansas City, Missouri, 129 miles north-northeast; and St. Louis, Missouri, 294 miles east-northeast.

   c. The local communities located nearest to the Plant are Parsons, Kansas, three miles west; Altamont, Kansas, six and one-half miles southwest; Oswego, Kansas, six miles southeast; Pittsburg, Kansas, 28 miles east-northeast; Chanute, Kansas, 28 miles northwest; and Joplin, Missouri, 38 miles southeast.

   d. The Plant will have its boundary enclosed with various types of fence to identify the facility from other entities in the Great Plains Industrial Park.

2. Size:

   a. Total Acreage: 4,112 Acres

   b. Total acreage of the Plant consists of 1,160 acres of improved land, and 2,952 acres of unimproved land. The improved land is currently active production, maintenance, and administrative areas. The unimproved land is 692 acres of woodlands and approximately 2,260 acres available for agricultural purposes.

3. Topography and Drainage:

   a. D&Z Drawing Number A-GEN-152, General Area Topographic, is enclosed as Appendix III.

   b. The drainage system is shown on D&Z Drawing Number A-GEN-215, General Area Pollution control Sample Point Map, enclosed as Appendix IV. The Plant is constructed on a ridge laying in a north-south direction. Drainage to the east flows into the Neosho River. Drainage to the west flows into the Labette Creek. Surface water flows through ponds, which vary from two to 15 acres in size, prior to leaving Plant property. The terrain is rolling and well sodded with prairie grass or seeded with cool season grasses. Surface water runoff is over grassland; erosion problems are negligible. There are no channels within the Plant area. Drainage courses shown by arrows on the drawing could be classified as wet weather ditches since they are dry a portion of the year. The

drainage area ranges from 250 acres to two square miles and in general, the slope ranges from 0.5 percent to 1.0 percent.

c. Flood Drainage Potential: Construction of reservoirs on the upper Neosho River during the 1950's has greatly reduced flooding. However, occasional flooding occurs for periods of up to four or five days. Flooding does not occur in the D&Z footprint.

d. Soils:

(1) Installation soils are generally silty loams with very low permeabilities.

(2) D&Z Drawing Number A-GEN-100, Soils Map, enclosed as Appendix II, is coded to reflect the various types of soil.

(3) Soil Table

Name of Soil	Depth to Water Table	Overall Permeability	Typical Ph
Bates Very Fine Sandy Loam	6'+	Moderate	5.5 – 6.0
Cherokee Silt Loam	6'+	Very Slow	5.5 – 6.0
Labette Silt Loam	6'+	Moderate	5.5 – 6.0
Neosho Silt Loam	6'+	Very Slow	5.5 – 6.0
Parsons Silt Loam	6'+	Very Slow	5.5 – 6.0
Summit Silty Clay Loam	6'+	Very Slow	5.5 – 6.0
Summit Silty Clay	6'+	Very Slow	5.5 – 6.0
Verdigris Silt Loam	6'+	Moderate	5.5 – 6.0

I. COUNTY LOCATION AND SIZE

1. County Location and Size:

a. D&Z Drawing No. A-GEN-68, Appendix I, is annotated to reflect the location of Labette County within the State.

b. All-weather (gravel) roads are along the southern, western, and northern boundaries of Labette County. The southern boundary is also the border line between Kansas and Oklahoma. There are no geographic or physiographic features on the eastern line.

c. Latitude and longitude of center of county: Latitude 37 degrees 11' 30" north; Longitude 95 degrees 17' 50" west.

d. Size in square miles – 650

e. Population – 21,607 (as of 2010)

f. Principal cities

(1) Parsons, population – 10,500

(2) Oswego, population – 1,829

(3) Chetopa, population – 1,125

(4) Altamont, population – 1,080

g. County seat – Oswego

2. County Topography and Drainage:

a. A county topographic map annotated to reflect the major drainage systems and topographic features is enclosed as Appendix VI.

b. Labette County is located in Southeast Kansas. Small drainage courses (wet weather ditches) are numerous and flow into creeks that drain a sizable area. The major topographic features are the Neosho River near the eastern boundary and the Big Hill area near the western boundary. Construction of an earthen dam reservoir was completed in the Big Hill area by the Tulsa District Corps of Engineers.

c. Labette Creek occasionally floods during periods of heavy rainfall for a period of up to four or five days. Property owners adjacent to the creek experience some losses from crop production when this flooding occurs during the crop season. Damage to hay and grazing is minimal. A water shed district for Labette Creek is planned. The Neosho River drains a sizable area from North Central Kansas to the Oklahoma boundary. Construction of reservoirs upstream during the 1950's has greatly reduced flooding. However, occasional flooding occurs for periods of up to four or five days.

II. SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN

SPCC REGULATORY REQUIREMENTS
CROSS REFERENCE LIST

40 CFR Part 112 Requirements	Section in SPCC Plan
§ 112.7 GENERAL REQUIREMENTS	
§112.7 (a)(3) Physical Layout/Diagrams	Part I, Section H and Appendices I and IV
§ 112.7(a)(3)(i) Substance and Capacity	Appendices VII and VIII
§ 112.7(a)(3)(ii) Discharge Prevention	Appendices VII and VIII
§ 112.7(a)(3)(iii) Drainage Controls	Part II, Section D.2.b and Appendices VII and VIII
§ 112.7(a)(3)(iv) Countermeasures	Part II, Sections E and F; Part III; and Appendix XI
§ 112.7(a)(3)(v) Disposal of Recovered Material	Part II, Section D.2.d
§ 112.7(a)(3)(vi) Contact List	Appendices XII and XIV
§ 112.7(a)(4) Reporting Procedures	Part III, Sections D and I; and Appendices XII and XIV
§ 112.7(b) Equipment Failure Prediction	Part II, Section D and Appendices VII and VIII
§ 112.7(c) Containment and/or Diversionary Structures	Part II, Section D and Appendices VII and VIII
§ 112.7(d) Explanation of 112.7(c) no practicable	n/a
§ 112.7(e) Inspections, Tests, and Records	Part II, Section H and Appendix XXI
§ 112.7(f) Training & Discharge Prevention Procedures	Part III, Section K
§ 112.7(g) Security	Part III, Section L
§ 112.7(h) Loading/Unloading	Part III, Section J
§ 112.7(i) Brittle Fracture	n/a

SUBPART B - REQUIREMENTS FOR PETROLEUM OILS

§ 112.8 ONSHORE FACILITIES	
§ 112.8(b) Facility Drainage	Part I, Section H.3
§ 112.8(c) Bulk Storage Tanks	Part II, Section D.2
§ 112.8(c)(1) Tank Material Compatibility	Part II, Section D.2.a
§ 112.8(c)(2) Tank Containment	Section D.2
§ 112.8(c)(3) Procedures for Draining of Containment	Part II, Section H.1.c
§ 112.8(c)(4) Buried Metal Tanks Corrosion Protection	n/a
§ 112.8(c)(5) Partially Buried Metal Tanks Corrosion Protection	n/a
§ 112.8(c)(6) AST Testing	Part II, Section H
§ 112.8(c)(7) Internal Heating Coils	n/a
§ 112.8(c)(8) Overfill Protection Devices	Part III, Section J
§ 112.8(c)(9) Treatment Facility Inspection	n/a
§ 112.8(c)(10) Small Leak Repair	Part II, Section E.6
§ 112.8(c)(11) Mobile Storage Tank Containment	n/a
§ 112.8(d) Facility Transfer Operations, Pumping, and In-Plant process	n/a

A. INTRODUCTION

The Day & Zimmermann Kansas LLC SPCC Plan identifies potential sources of oil and hazardous substances and the measures required to prevent and contain any accidental discharge resulting from equipment or storage facility failure.

B. POLICY

1. D&Z will:

    a. Identify potential sources of oil and hazardous substance spills.

    b. Implement and continually update measures to prevent, contain, and/or reclaim any accidental discharge resulting from equipment or storage facility failure.

    c. Have available necessary trained personnel, equipment, and supplies in the event of an oil or hazardous substance spill.

C. DRAINAGE

1. See Part I, Section I, Paragraph 2, Page 10, County Topography and Drainage.

D. DIVERSION AND CONTAINMENT OF DISCHARGE

1. General Information:

    a. Type of failure

        (1) Overfilling tank

        (2) Gasket failure

        (3) Weld leak or rupture

        (4) Open return line

        (5) Broken or leaking supply and return lines

        (6) Leaking or ruptured containers

    b. Rate of flow

        (1) Overfilling tank – approximately 300 gallons/minute

        (2) Gasket failure – from 1 to 50 gallons/minute

        (3) Weld leak or rupture – from 1 to 300 gallons/minute – depending upon the severity of the failure

        (4) Open return line – 1 to 50 gallons/minute

(5) Broken or leaking supply or return line – 1 to 200 gallons/minute

(6) Leaking container – depending upon the severity of the failure

c. Detection methods

(1) Visual

(2) Odor

(3) Integrity testing

(4) Tank inventory

d. Minimum time to reach river from closest storage location – approximately forty minutes

2. Oil

a. All of the oil storage tanks are welded steel construction and compatible with the contents they hold based on the expected storage conditions.

b. All but two aboveground oil storage tanks with a capacity greater than 660 gallons are enclosed with concrete dikes. The concrete dikes have been constructed in accordance with sound engineering practices. The exceptions are the 2,000-gallon tank in the 1000 Area, and the 1,000-gallon tank in the 1100 Area, which are both of double-wall construction. The dike area is sized to contain the contents of the tank plus a freeboard of not less than six inches. All dikes are equipped with a drain pipe with a manually operated valve that is kept locked, except to periodically drain rainwater from the dike. All tanks that are not used for extended periods have the valves closed and located inside locked/limited access areas. Empty tanks are labeled appropriately, and the dike valves are open to allow rainwater to escape immediately.

c. It is intended that spills and overflows of tanks be prevented by monitoring filling operations as provided in the Installation Spill Contingency (ISC) Plan.

d. Aboveground Tanks: Oil will be contained within the dike. Oil will be reclaimed by pumping and screening. Any remaining oil will be removed and the absorbents disposed of properly. The KDHE will be contacted for disposition of contaminated soil. In case of dike or valve failure, the flow direction would be as described in Appendix V.

e. List of Fuel Oil and Other Oil Substances Storage Sites and Description. See Appendix VII.

3. Other Oil Substances

a. Condensate water removed from:

(1) Oil tanks will be emptied inside a diked area.

(2) Pre-heaters inside No. 5 oil tanks located at boiler houses will be returned by condensate lines to the boiler house for reuse.

b. Waste oil generated in the Plant will be collected in drums, labeled "waste oil," and hauled to a designated building for storage. When a sufficient quantity has been accumulated to interest buyers, it is sold as fuel.

c. No waste solvents, paint thinners, other flammable liquids, or waste oil, will be burned in the oil-fired boiler plants. These materials will be stored in the Hazardous Waste Storage Igloos.

d. Vehicle fueling will occur at above ground storage tanks located at the west gate of the 1100 Area.

e. List of Fuel Oil and Other Oil Substances Storage Sites and Description. See Appendix VII.

4. Hazardous Materials

a. Most acids and other hazardous liquids are procured in small quantities, retained in original containers, and stored in approved storage containers until issued for use. Mercury, used only in gages and meters, will be stored in locked cabinets in the production areas.

b. Solvents, paint thinners, and other flammable liquids with a flash point below 140 degrees Fahrenheit (140^{o} F) will be stored at designated locations in the production areas.

c. Polychlorinated Biphenyls (PCB) (better known under trade names Pynanal, Inerteen, Noplomol, and Saf-T-Kuhl) are used in electrical equipment, primarily transformers and capacitors. Concern is expressed because of PCBs chronic toxicity, pervasiveness, persistence in the environment, and tendency to accumulate in food chains (including humans). PCB has a specific gravity of 1.4 to 1.5. When spilled on land, PCBs rapidly permeate the soil, finding their way to a water table; when spilled on water, PCBs sink to the bottom.

(1) All replacement capacitors will be of an insulating oil type.

(2) To ensure against any potential pollution from spillage, a bag of imbiber beads will be available at all times. Once the imbiber beads absorb the fluid Inerteen, they can then be handled and disposed of safely in accordance with applicable regulations.

d. Transformers containing PCB

(1) All in-service transformers on-plant have been tested for PCB content. All electrical equipment containing more than 500 parts per million of PCBs have been eliminated from the inventory.

(2) All leaking transformers will be treated in accordance with applicable regulations based upon the level of PCB present.

e. Explosives and explosive components in storage consist of the following items:

Composition A-5	Black Powder	Cyclotol	PAX-28
Composition B	RDX	CH-6	PAX-34
Composition C-4	Lead Azide	Octol	PAX-41
Lead Styphate	Primer Mix	TNT	PAX2A
Tetracene	Prop. Charges	Primers	PAX-21
Detonators	M-10 Propellant	Leads	PAX-3
M-223 Fuzes	Zirconium Rings	LX-14	Tetryl
M-1 Propellant	M-30 Propellant	Composition A-3	Composition A-3, Aluminized
M42 Grenades	BLU 97/B Assemblies	PBXW-11	

f. Finished ammunition in storage consists of the following items:

	M795 Projectiles
M483/155mm Shells	60mm Mortars
120mm Mortars	Rockeye
M864 Projectiles	PAW
SFW	M42 Grenades
CEM	M46 Grenades
SMAW-D Dual Warheads	M77 Grenades
	81mm Mortars

All of the explosives, explosive components, and finished ammunition products vary in quantity, depending on production rates and mobilization requirements.

g. Pest control measures

(1) Names, frequency, and use are shown below:

Names	Frequency	Use
Diazinon	Monthly	Insect Control
Ureabor	Yearly	Soil Sterilant
AC Formula 50	Monthly	Rodent Control
Round-Up	Yearly	Vegetation Control
Eaton Bait Bitz	Continuous	Rodent Control
Bromacil	Yearly	Soil Sterilant
Pyrethrins	Monthly (Approx.)	Insect Control
Talon-G (Pellets)	Continuous	Rodent Control
Hyvar XL	Yearly (Summer)	Soil Sterilant

(2) Only U.S. Environment Protection Agency approved pesticides are used.

(3) The application of all pest control materials is under the supervision of a certified pesticide applicator. Monitoring of the area tested is accomplished prior to and following application.

(4) No alternative measures for controlling pests are being considered at this time.

(5) There has been no unusually heavy application of pesticides on Plant property.

(6) The materials are applied by subcontracted pest management companies in accordance with applicable State and Federal regulations and guidelines.

(7) No pesticides are stored at this facility.

h. List of Hazardous Substances Storage Sites and Description. See Appendix VIII.

i. Selected Hazardous Substances Data Sheets. See Appendix X.

5. Hazardous Wastes

a. List of Hazardous Waste Storage Sites and Description. See Appendix IX.

E. EQUIPMENT

1. Equipment listed in Appendix XI is available for control and containment of spills of oil, hazardous materials, and hazardous waste should the need arise.

2. An internal communications alarm system to provide emergency instructions to personnel is present at all active production areas.

3. A telephone or a hand-held two-way radio capable of summoning emergency assistance will be available at the scene of operations.

4. Portable fire extinguishers (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals) are available at all sites where spills could occur.

5. Water at adequate volume and pressure to supply water hose streams, foam producing equipment, automatic sprinklers, or water spray systems are available at or near all sites where spills could occur. Fire hydrant locations in the production areas are identified in Appendix XX.

6. If equipment is used to respond to a release, when the response is completed all equipment will be inspected and any needed repairs or replacement will be completed and the equipment returned to service.

F. MATERIALS

1. Except for gasoline spills, water and/or chemicals dispersants will not be used.

2. Limestone gravel (AB-3) is stockpiled at Plant sites, as annotated on Various Storage Locations Drawing, centralized locations on the Appendix XV.

3. Absorbent pads are available within the production areas for spill response.

G. CHEMICAL SPECIFIC PERSONAL PROTECTIVE EQUIPMENT

1. A listing of Chemical Specific Personal Protective Equipment is maintained by the Safety Department in Material Safety Data Sheet (MSDS) and Standard Operating Procedure (SOP) libraries. In addition, SOPs are maintained at operating line offices and at workstations.

H. INSPECTIONS AND RECORDS

Facility personnel periodically observe aboveground tanks, drums, and single-use containers. The oil storage tanks and appurtenances (pipes, hoses, pumps, valves, etc.) will be inspected monthly, and the results will be recorded on the Monthly Inspection Checklist (Appendix XXI), which generally follows the Steel Tank Institute, Standard for the Inspection of Aboveground Storage Tanks (STI SP001) monthly inspection checklist example. The facility will be inspected annually, and the results will be recorded on the Annual Inspection Checklist (Appendix XXI), which generally follows the STI SP001 annual inspection checklist example. These inspection reports will be kept for at least three years in a file maintained by D&Z. Inspections include observations of the exterior of the tank for signs of deterioration or spills (leaks), observations of the interstitial spaces of the tank for signs of leaks, observations of the tank foundation and supports for signs of instability, and observations of the vent, fill, and discharge pipes for signs of poor connection that could cause a spill.

Federal rules require that oil storage tanks and transfer equipment be periodically tested to ensure the integrity of the bulk storage tanks. Integrity testing will be conducted in accordance with an industry standard procedure. STI SP001 is currently used.

D&Z personnel will conduct inspections, as required, of oil storage tanks and transfer equipment per the schedule prescribed in the table below. Inspection checklists are provided in Appendix XXI.

SCOPE AND FREQUENCY OF INSPECTIONS AND TESTS

Inspection / Test	Bulk Container
	ASTs
Visual inspection by facility personnel (following checklist in Appendix XXI)	Monthly and Annually[1]
Integrity evaluation by a certified tank inspector	As needed[2]

[1]Monthly and Annual inspections are performed by facility personnel using inspection forms (Appendix XXI).

[2]Conditions and practices are associated with these tanks that provide environmental protection equivalent to integrity testing. If leaks of the tanks are detected or if any damage to the tanks occurs, the tanks will be evaluated by an outside certified tank inspector following Steel Tank Institute or other applicable standards.

The checklists provided in Appendix XXI will be used by D&Z employees for monthly and annual inspections of the tanks and equipment. All problems regarding tanks, piping, containment, or response equipment must immediately be reported to D&Z management. If leaks of the tanks are detected or if any damage to the tanks occurs, the tanks will be evaluated by an outside certified tank inspector following Steel Tank Institute or other applicable standards.

AST Inspections

D&Z personnel will conduct visual inspections of ASTs and transfer equipment according to a monthly and annual schedule. Inspections will include the following observations:

- Observe the exterior and secondary containment walls of ASTs, piping, and other equipment for signs of deterioration, leaks, corrosion, and thinning
- Observe for leaks within the interstitial space of double-walled and double-bottomed ASTs
- Observe the ground surfaces in the vicinity of tanks and containers for signs of leakage
- Observe tank foundations and supports for signs of instability or excessive settlement
- Observe the tank fill ports and discharge valves for signs of poor connection that could cause a discharge, and observe tank vent for obstructions and proper operation
- Observe the exterior of portable containers for signs of deterioration or leaks

When a tank undergoes a repair, alteration, reconstruction, or change in service, or following a spill event or equipment failure, a comprehensive industry-standard evaluation of the tank will be recorded, along with the appropriate action taken.

1. Tank/Dike Inspection Plan

    a. Tank and dike deficiencies are noted on a Fuel Oil Dike Drainage Log, when rainwater is drained in accordance with paragraph H.1.c.

    b. Operating personnel will continually inspect aboveground tanks, oil supply and return lines for leaks concurrent with the boiler service. These inspections will be conducted visually.

    c. The water contained in the fuel oil dikes will be emptied from the dikes as required during periods of heavy rainfall. This water must be inspected for visible oil contamination, and any oil contamination, and any oil or oily sheen detected must be removed before discharging the water. A record (Fuel Oil Dike Drainage Log) will be completed for each water draining episode and maintained in the maintenance records.

2. Hazardous Waste Facilities Inspection Plan

    As required by KAR 28-31-264.15, “The owner or operator must inspect his facility for malfunctions and deterioration, operator error, and discharges which may be causing or lead to: (1) Release of hazardous waste constituents to the environment; or (2) threat to human health.”

    a. The following frequencies are required:

        (1) Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use.

(2) Areas where containers are stored must be inspected for leaks and deterioration caused by corrosion or other factors at least weekly.

b. The following inspections and monitoring schedules will be followed by Day & Zimmermann Kansas LLC:

(1) Demolition Grounds: The Demolition Grounds will be inspected daily for spills as used. The operator at the Demolition Grounds will be responsible for performing this inspection and completing proper documentation (see Appendix XIII for example of reporting record).

(2) Hazardous Waste Storage Igloos: The igloos will be inspected weekly. The containers inside will be checked for corrosion, leaks, and deterioration. The construction of the igloos will be checked for cracks and the area surrounding the igloos will be inspected for spills or leaks. Explosive Stores personnel will be responsible for these inspections and for the completion of proper documentation (see Appendix XIII for example of reporting record).

I. INSTALLATION RESPONSE OPERATIONS CENTER

1. The Installation Response Operations Center will be located in the production areas.

III. INSTALLATION SPILL CONTINGENCY (ISC) PLAN

A. INTRODUCTION

The ISC Plan contains specific information and required actions to be taken in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at this facility. The ISC Plan establishes responsibilities, duties, procedures, and resources to be employed in order to respond to, contain, and clean up accidental discharges.

B. POLICY

1. D&Z will:

   a. Have available, at all times, at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures.

   b. Identify potential sources of oil, hazardous material, and hazardous waste releases.

   c. Implement and continually update measures to prevent, contain, and/or reclaim any accidental discharge resulting from equipment and supplies in the event of an oil, hazardous material, or hazardous waste release.

   d. Implement evacuation of facility personnel as appropriate. Appendices XVI and XVII identify evacuation route procedures and evacuation routes from the hazardous waste storage areas. SOPs for emergency evacuation procedures on the two production lines are enclosed as Appendix XIX. These SOPs describe the employee actions to be taken in case of an emergency, evacuation routes, employee training, and other safety requirements

C. DEFINITIONS

See Part 1, Section F, Definitions, Paragraphs 1 through 21, Pages 3 – 6.

On-Scene Coordinator/ Primary Emergency Coordinator – Responsible for the implementation of the ISC plan, identifying and assessing the emergency, coordinating the response, coordinating with external agencies and committing resources needed to respond to the emergency.

D. ALERT PROCEDURES AND RESPONSIBILITIES

Whenever there is an imminent or actual emergency situation, the On-Scene Coordinator/Primary Emergency Coordinator (OSC), or his designee, must immediately activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and notify appropriate State or local agencies with designated response roles if their help is needed.

1. Individual discovering a spill will telephone the roving guard at 778-1720, answer all questions asked by the roving guard, and then follow all instructions given by the roving guard. Signs with this extension number and instructions to call the dispatcher are placed at each site.

2. The roving guard will:

    a. Find out the location of spill.

    b. Take caller's name, location, and extension number.

    c. Tell caller to remain near the telephone until notified by the On-Scene Coordinator.

    d. Call the OSC and relate the information gathered from a and b (above).

3. On-Scene Coordinator/Primary Emergency Coordinator has the following responsibilities:

    a. After receiving notification from the roving guard, call the individual who first reported the spill to assess the severity of the spill.

    b. Tell the roving guard to notify the Industrial Hygienist, and/or the Production Supervisor.

    c. The OSC will see that any of the Installation Response Team members that will be needed are notified.

    d. Top priority will be to contain the release and then cleanup operations will begin. The OSC will coordinate all efforts concerning the cleanup operations and see that they are done in accordance with all applicable regulations. If the spill is reportable, the OSC will make required telephonic notifications to all other agencies listed in Appendix XIV.

    The OSC will be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person will have the authority to commit the resources needed to carry out the contingency plan.

4. On-Scene Coordinator/Installation Response Crew Supervisor: Provides direction to the Installation Response Crew for operations requested by the OSC.

5. Environmental Coordinator: Provides advice on environmental regulations concerning a particular release.

6. Production Supervisor: Has the responsibility of notifying members of the Team and Safety Personnel. The Environmental, Health & Safety Specialist will:

   a. Develop shutdown procedures for utilities services, including routine and emergency shut-down.

   b. Maintain utility services under disaster conditions, provide emergency utilities, and anticipate and prepare for impairment of utility service caused by spreading of the disaster.

   c. Establish emergency communications as normal systems are disrupted.

   d. Conduct such disaster control functions as utility shuts-offs, debris removal, demolition of damaged structures, firebreaks, and clearing traffic lanes.

   e. Provide temporary repairs and develop procedures for return to normal operations.

   f. Shut down inspection areas and secure tools, gages, and equipment.

   g. Evacuate and account for personnel, assist in identification of casualties, and provide personnel for rescue teams. Evacuation routes will be as depicted in Appendix XIX.

   h. Control personnel, maintain order, and prevent panic.

   i. Conduct inspections of finished products, components, and other items necessary for recovery operations.

   j. Provide laboratory analysis of materials connected with the cause of the disaster.

7. Industrial Hygiene Advisor: Provides advice on correct industrial hygiene procedures.

8. Safety Advisor: Provides advice on safe practices and safety rules.

9. Fire Department Advisor: Provides fire and explosion control.

10. Installation Response Crew: Provides labor for containment and cleanup operations.

E. IDENTIFICATION OF INSTALLATION RESPONSE TEAM (See Appendix XII)

1. On-Scene Coordinator/Primary Emergency Coordinator: Environmental Engineering Project Engineer. (1st Alternate – EHS Specialist)

2. Installation Response Crew Supervisor: Maintenance Supervisor. (Alternate – Representative of Response Crew.)

3. Environmental Coordinator: Environmental Engineering Project Engineer.

4. Industrial Hygiene Advisor: EHS Specialist.

5. Safety Advisor: EHS Specialist.

6. Installation Response Crew: Laborers from the Warehousing and Assets Department.

F. ACTIONS

Spills

All indications of spills and leaks of potentially hazardous or unknown substances, including sewage bypasses, will be reported immediately, regardless of size, location, or time of day.

Immediate actions for the Response Team will involve: (1) Stop the flow; (2) evacuate personnel from any area where a spill may create a dangerous/hazardous condition (See Appendices XVI and XVII); (3) report the spill; (4) contain the spill, and (5) clean up the spill. Further actions will be taken depending on the extent of contamination.

The following actions will be taken depending on the type of spill.

Corrective actions to be taken on spills which do not fit into the categories below will be determined by the OSC.

1. All Spills: Dike spill as close to the source as possible. Restrict contaminant from any drain or surface ditch (see Part II, Section F, materials, Paragraphs 1 through 4, Page 20). Any saturated sawdust, straw, sweeping compound, gravel, or other material used to absorb the spill (except PCB and pesticides) will be handled in accordance with guidance obtained from the KDHE. No contaminant or saturated cleanup material will be left at the spill site, unless directed by the KDHE.

2. Spill in Open Ditch or Sewer: Block flow to prohibit contaminant from entering any waterway or sanitary sewage system. Construct dike with impervious filler material, such as AB3 to stop flow. In case the spill has entered the storm or sanitary sewer, discontinue use of the system, restrict sewage directly below the spill site, and pump all contamination from the system. In case of contamination of a sanitary sewer, it is essential to separate the sanitary contaminants and reintroduce them into the sewage system for proper treatment.

3. Spills in Stable Bodies of Water: Spills that enter ponds or lakes must be prohibited from leaving the body of water. Measures will be taken to reduce the chance of water escaping. This can best be done by increasing spillway or dam height. Contaminants in the water will be controlled and removed by the use of imbibing materials or skimming. The pond will be fenced to keep livestock out, and tests run to determine if livestock have been contaminated. Lessees of the land tract will be notified by the Day & Zimmermann Kansas LLC and fishermen will be advised of the actions by signs and fences.

4. Spills in Flowing Water: Every effort will be made to remove the contaminant from a flowing water system.

5. Other Spills

   a. Spills of gasoline and small spills of acid will be flushed with copious amounts of water as required by the OSC. After flushing and acid spill on meal or concrete, wash the area with a 3 percent (3%) solution of soda ash. In the case where flushing is not possible, absorbent pads and vapor suppressing foams will be used.

   b. Small spills of mercury will be brushed up, picked up, and placed in a storage container and transported to an approved hazardous waste storage igloo. In no case will mercury be heated.

   c. Actions will be taken to insure that no incompatible materials are allowed to come in contact with each other, such as acids and bases.

   d. In the event solvents, paint thinners, or other flammable liquids with a flash point below 140 degrees Fahrenheit (140^{o} F) are spilled, the spill will be soaked up with straw, sawdust, or other approve absorbent material. Absorbents will be placed into drums, labeled and transported to Hazardous Waste storage.

   e. PCB spills or leaks will be handled with imbiber beans, the contaminated material placed in an approved storage container, labeled, and stored in a designated PCB storage area.

Fires and/or Explosions

The OSC must immediately identify the character, exact source, amount, and areal extent of any released materials. This may be done by observation, review of facility records or manifests, and, if necessary, by chemical analysis.

1. The OSC must assess possible hazards to human health or the environment that may result from the fire and/or explosion.

2. The OSC must consider both direct and indirect effects, such as toxic, irritating, or asphyxiating gases that are generated, or effects of any hazardous surface water run-off, or chemical agents used to control fire and heat-induced explosions.

3. If the OSC determines that the facility has had a fire and/or explosion that could threaten human health, or the environment outside the facility, he/she must report the findings as follows:

   a. If the assessment indicates that evacuation of local areas may be advisable, the OSC must immediately notify appropriate local authorities; and

   b. Notify the National Response Center.

   During an emergency, the OSC will take all reasonable measures to ensure that fires and explosions do not occur, recur, or spread to other hazardous waste at the facility, including, where applicable, stopping processes and operations, collecting and containing release waste, and removing or isolating containers.

If the facility stops operations in response to a fire, explosion, or release, the OSC will provide for monitoring for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, where appropriate.

Immediately after an emergency, the OSC will provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a fire or explosion at the facility.

G. EQUIPMENT

See Part II, Section E, Equipment, Paragraphs 1 through 5, Pages 19 – 20, and Appendices XI and XX.

H. MATERIALS

This equipment is also available if tasked to aid in the clean-up. See Part II, Section F, Materials, Paragraph 1 through 5, Page 20.

I. REPORTING REQUIREMENTS

1. Notification to State, Federal, and local authorities will be accomplished by D&Z. See Appendix XIV.

2. Reportable spill events and discharges will be reported immediately by telephone to the National Response Center, the Kansas Department of Health and Environment, the US Environmental Protection Agency, and, if applicable, to the Kansas State Emergency Response Commission. The Labette County Emergency Response Committee will be notified by the On-Scene Coordinator if required.

3. The D&Z Environmental Coordinator will submit a written report to the appropriate agencies within five (5) working days after telephone notification of a spill event, showing the location of the spill, topographic maps, and flow diagrams. A written report will be forwarded to the EPA within sixty (60) days after a single discharge of 1,000 gallons or more oil or two spill events in a 12-month period. The EPA will determine the need for a written incident report for hazardous substances on an individual basis.

4. The D&Z Environmental Coordinator will note in the facility operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, D&Z will submit a written report on the incident to the EPA Regional Administrator.

5. The comprehensive Environment Response, Compensation and Liability Act (CERCLA) of 1980, requires immediate notice to the national Response Center when a release of a hazardous substance into the environment occurs in amounts equal to or greater than the reportable quantity.

6. Any news releases will be controlled by applicable documents by the General Manager.

J. SURVEILLANCE

Qualified D&Z personnel will observe/witness any loading/unloading of bulk oil or other hazardous substances. In addition, periodic inspections will be performed.

Also, all active ASTs will be equipped with high liquid level sensing devices or other acceptable alternatives to prevent oil discharges. Each oil transfer location will have secondary containment available for the delivery truck, with sufficient capacity to contain the volume of the largest compartment of the truck plus rainfall.

K. TRAINING

All members of the response team will be made aware of the requirements and procedures contained in this document. Annually, a Simulated Spill Exercise will be accomplished to provide the coordination and training necessary for spill control. The exercise will be initiated by the Environmental Coordinator.

1. Hazardous Waste facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in hazardous waste management procedures including contingency plan implementation relevant to positions in which they are employed.

2. The training program is designed to ensure that facility with emergency procedures, equipment, and systems personnel are able to respond effectively to emergencies by familiarizing them including where applicable:

    a. Procedures for using, inspecting, repairing, and replacing facility monitoring equipment.

    b. Key parameters for automatic waste feed cut-off systems.

    c. Communications or alarm systems.

    d. Response to fire or explosions.

    e. Response to ground water contamination incidents.

    f. Shut-down of operations.

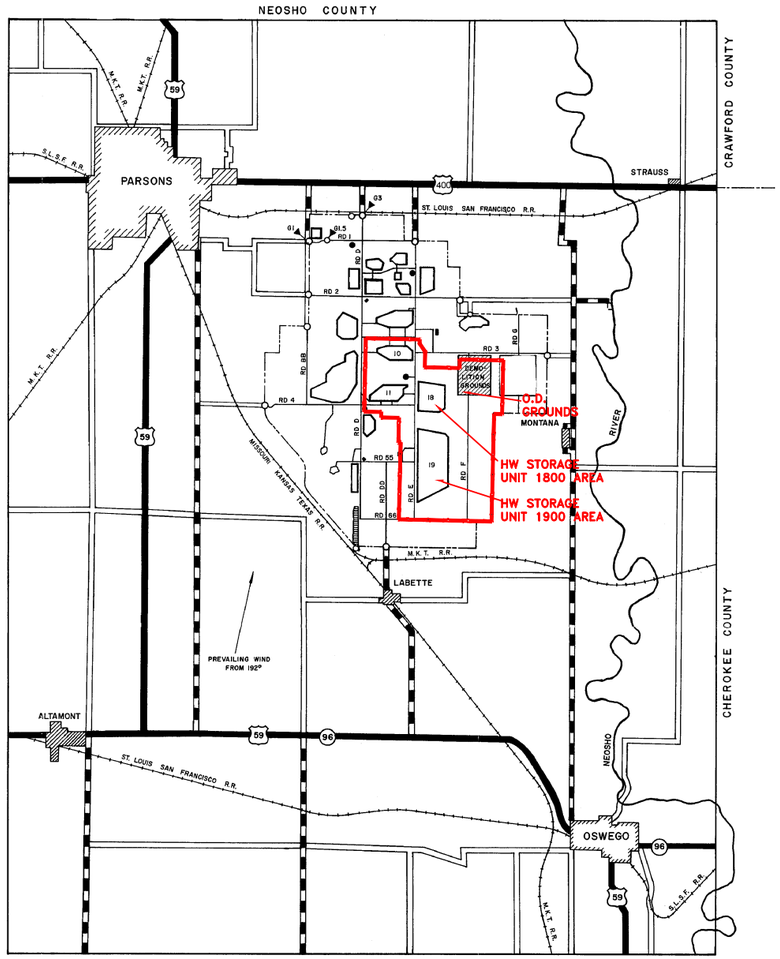
3. Oil-handling personnel will also receive annual training for proper handling procedures for oil products to minimize operator error that could result in spills.

4. SOPs for emergency evacuation procedures on the two production lines are enclosed as Appendix XIX. These SOPs describe the employee actions to be taken in case of an emergency, evacuation routes, employee training, and other safety requirements.

L. EMERGENCY COORDINATION AGREEMENTS

The Neosho Township Rural Fire Department, Oswego Township Rural Fire Department and the Parsons Fire Department, and area hospitals are available to the OSC and designated alternates to implement

the contingency plan. The Security Department is responsible for maintaining security within the facility boundaries. No local police will be used. In case of fire, the fire departments will be used as needed. These local fire units will not be allowed to fight fires in explosive storage or manufacturing areas if explosives are involved. Outside contractors may be retained for spill clean-up, and will be used if necessary on a case-by-case basis. Agreements with area hospitals and fire departments will be developed to assure adequate coverage for the facility to control, contain, and stop fires, and to provide emergency medical treatment for employees affected by these events. Copies of the Contingency Plan will be maintained at the facility, and copies will be distributed to fire departments, hospitals, and all other local emergency response teams that may be called upon to provide emergency services.



LEGEND

HW STORAGE UNITS 1800 AREA 1813

HW STORAGE UNITS 1900 AREA 1914, 1915, 1916, 1917, 1958, 1961, 1974 AND 1976

HW STORAGE UNITS 2700 AREA 2707, 2708 AND 2709

10-1000 AREA - PRODUCTION - 105 MM ARTILLERY

11-1100 AREA - PRODUCTION - CBU

18 THROUGH 19 - EXPLOSIVE STORAGE

D&Z BOUNDARY

●-WATER TOWERS

-GATES

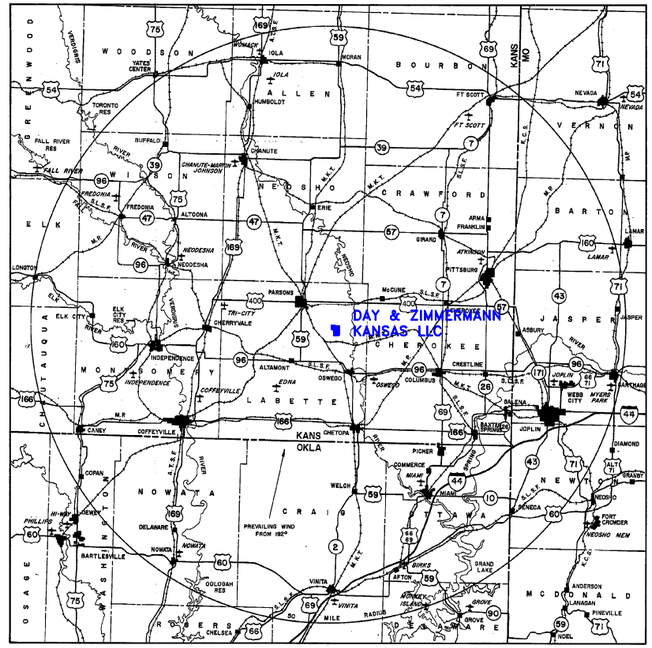
U.S. & STATE HIGHWAYS (2-LANE PAVED)

COUNTY ROADS (2-LANE PAVED)

COUNTY ROADS (2-LANE GRAVEL)

K.A.A.P. BOUNDARY

N



LEGEND

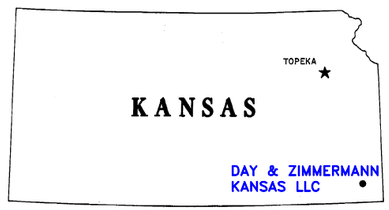
U.S. HIGHWAY

STATE HIGHWAY

INTERSTATE HIGHWAY (4-LANE)

RAILROADS:
M.K.T. - MISSOURI KANSAS & TEXAS R.R.
S.L.S.F. - ST. LOUIS & SAN FRANCISCO R.R.
M.P. - MISSOURI PACIFIC R.R.
A.T.S.F. - ATCHISON TOPEKA & SANTA FE R.R.

ATKINSON CIVIL AIRPORTS



STATE MAP

SCALE: 1" = 50 MILES

ORIGINALS	A913	RDB	10-22-09	ORIGINAL
APPROVALS ARE RECORDED ELECTRONICALLY ON THE SHARE POINT SERVER IN THE DRAWING LIBRARY	DR NO.	DESIGN ENGINEER	DATE	DESCRIPTION OF REVISION

APPROVALS - DAY & ZIMMERMANN, INC.

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STAMP MARK OR ETCH PIECE MARK ON EACH PART.

BREAK ALL SHARP EDGES UNLESS OTHERWISE NOTED.

APPLICABLE TOLERANCES UNLESS OTHERWISE NOTED.

COMMON FRACTIONS	±1/16
ONE DECIMAL	±.030
TWO DECIMALS	±.015
THREE DECIMALS	±.005
ANGLE	1°-0"
SURFACE FINISH	125

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PARSONS, KANSAS 67357

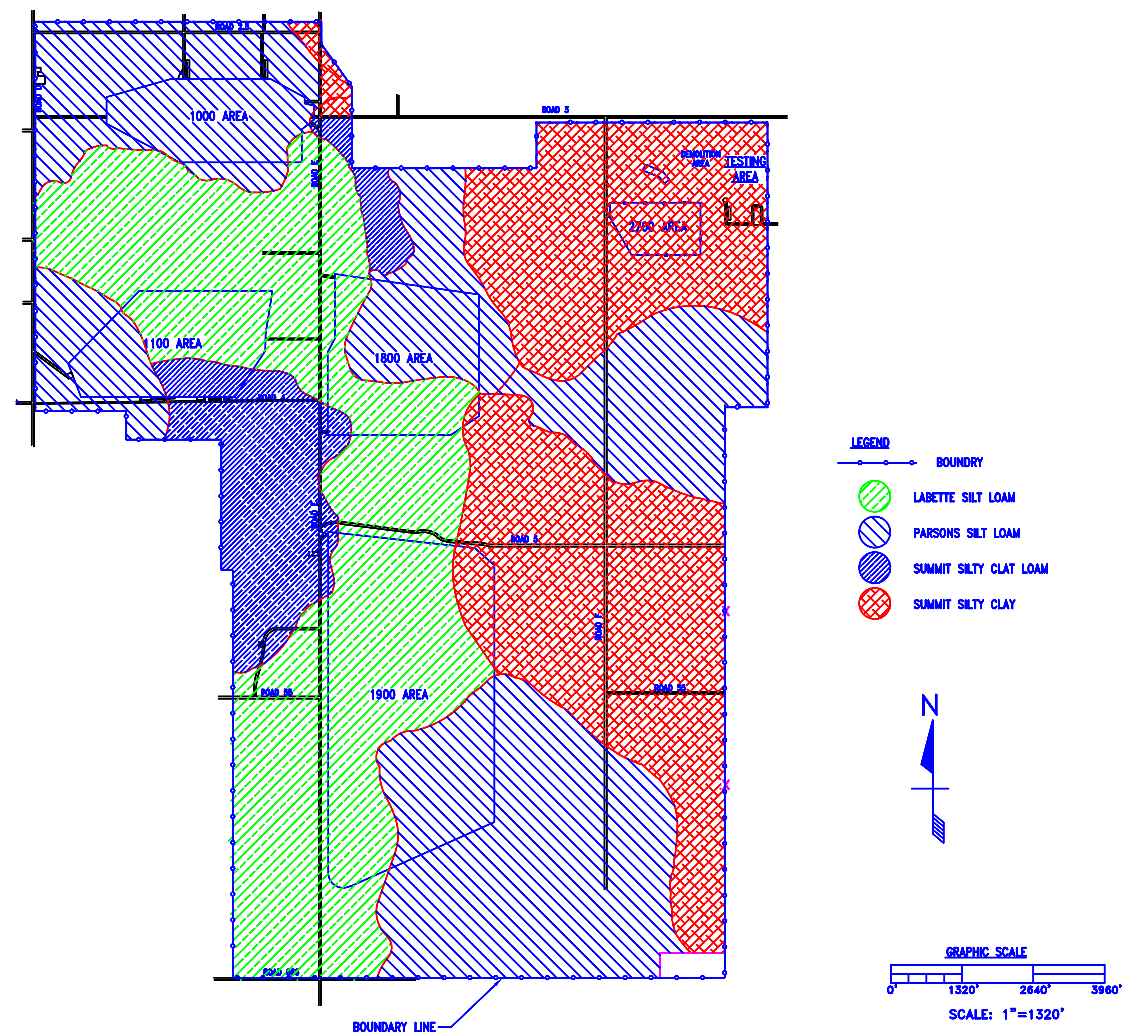
TITLE

ORIENTATION MAP
FIGURE I-1
APPENDIX I

AREA GENERAL BLDG. SCALE NOTED

SIZE	SHEET OF	DRAWING NUMBER	REV
F	1 1	A-GEN-277	0

A-GEN-100
SHEET 1 OF 1



DR NO.	DESIGN ENGINEER	DATE	DESCRIPTION OF REVISION
A913	RDB	10-13-09	ADDED NEW TITLE BLOCK AND PLANT BOUNDARY

ORIGINALS

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SPECIAL NOTES

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APPLICABLE TOLERANCES UNLESS OTHERWISE NOTED.

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ONE DECIMAL	±.030
TWO DECIMALS	±.015
THREE DECIMALS	±.005
ANGLE	1°-0'-0"
SURFACE FINISH	125

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SAFETY	PROJECT ENGINEER	DIR. OF ENGINEERING	DIR. OF PRODUCTION	MANAGER QUALITY		
APPROVALS - DAY & ZIMMERMANN, INC.						

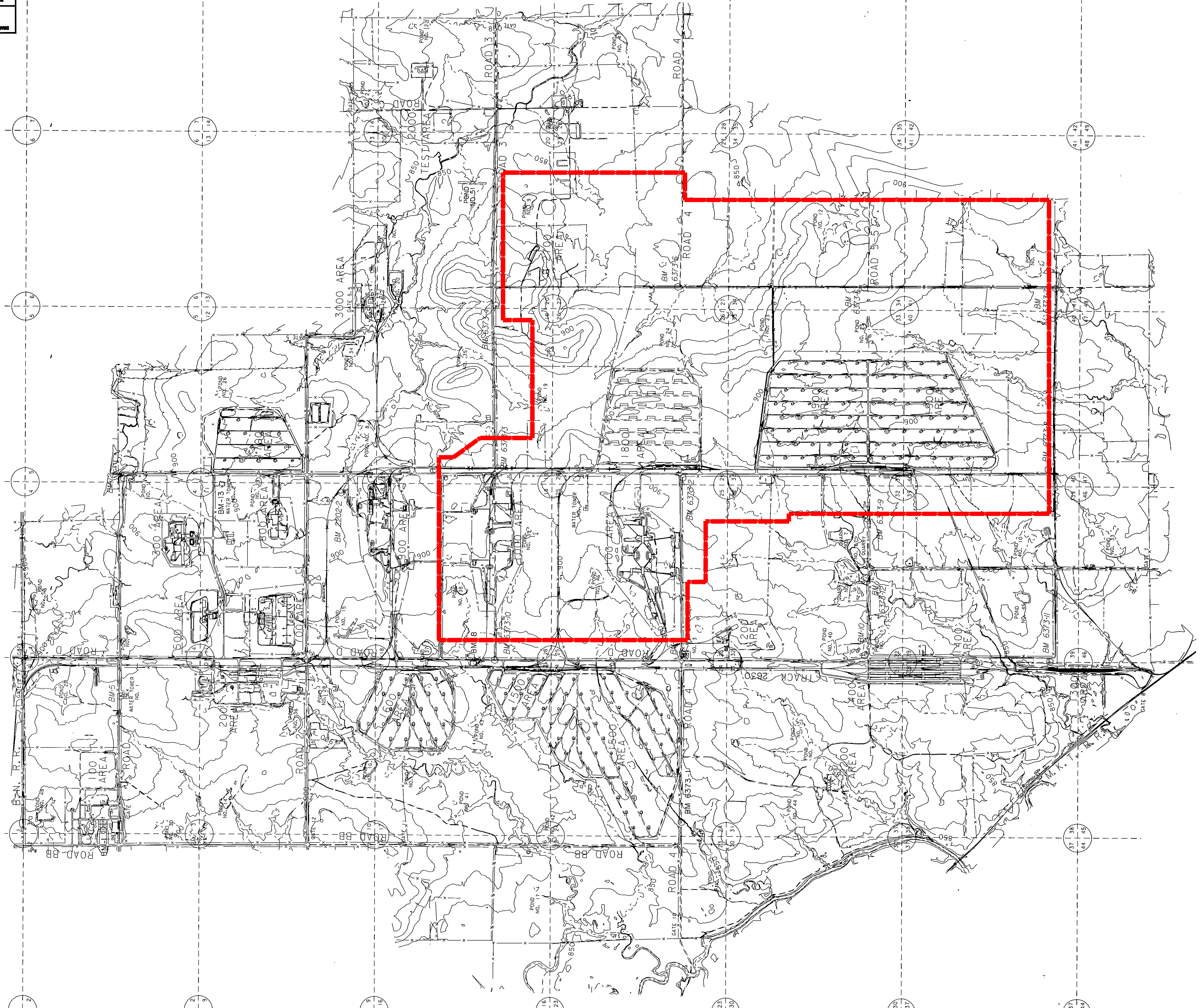
TITLE

SOILS MAP OF PLANT AREA DEPICTING DISTRIBUTION OF THE VARIOUS TYPES OF SOIL FIGURE B-14 APPENDIX II

AREA GENERAL BLDG. SCALE NOTED

SIZE	SHEET	OF	DRAWING NUMBER	REV
F	1	1	A-GEN-100	2

DRAWING NUMBER A-GEN-271
SHEET 1 OF 10



LEGEND

PLANT BOUNDARY

TOPO MAP DATE: 9-23-1986

GRAPHIC SCALE

0' 250' 500' 750'

D&Z PROPRIETARY

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APPLICABLE TOLERANCES UNLESS OTHERWISE NOTED.

COMMON FRACTIONS	±1/16
ONE DECIMAL	±.030
TWO DECIMALS	±.015
THREE DECIMALS	±.005
ANGLE	1°-0'-0"
SURFACE FINISH	125

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TITLE

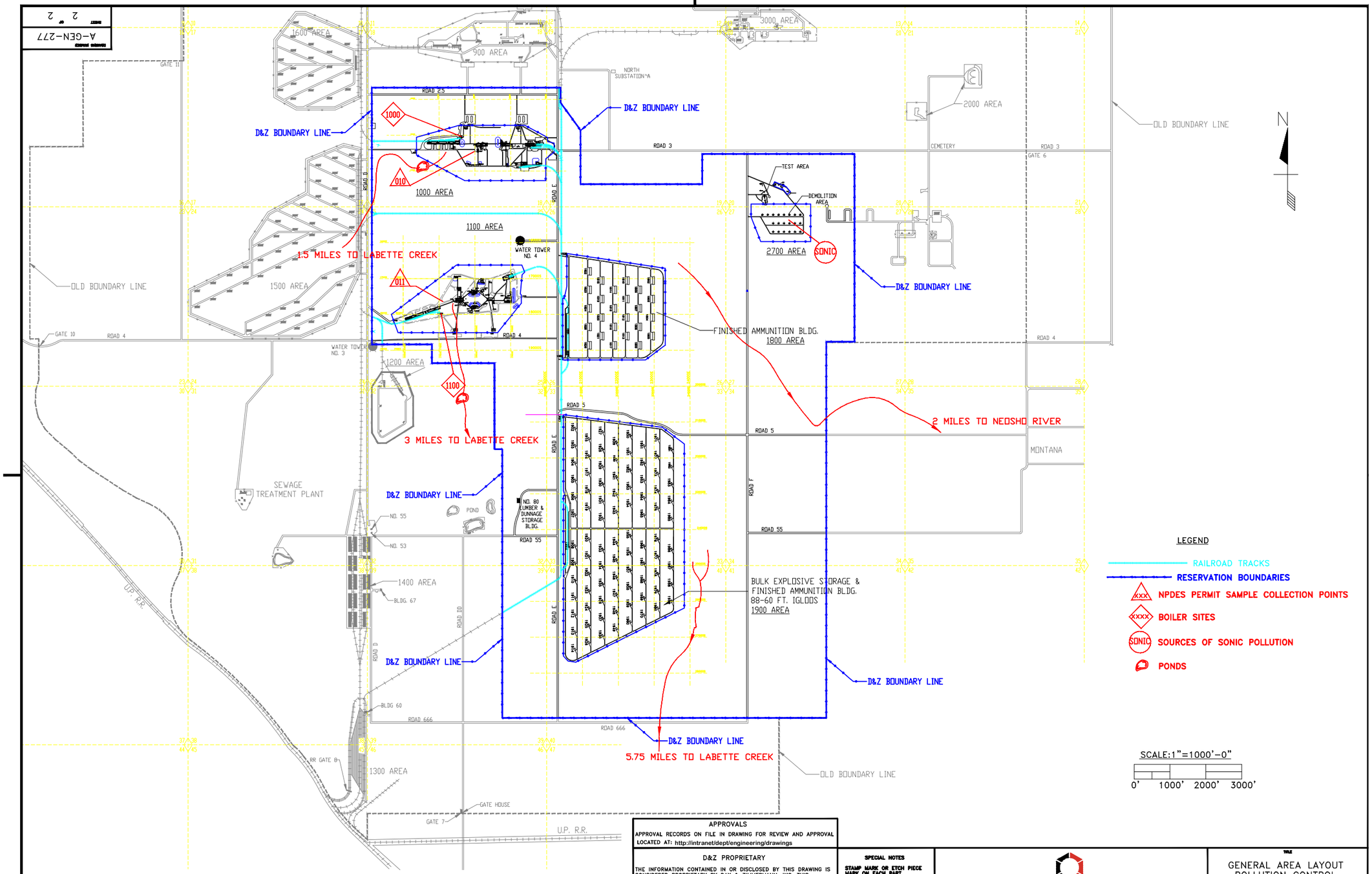
GENERAL LAYOUT
TOPOGRAPHIC
AND STORM DRAINAGE MAP
FIGURE B-7

APPENDIX III

AREA GEN BLDG. SCALE NOTED

SIZE	SHEET	OF	DRAWING NUMBER	REV
F	10	10	A-GEN-271	1

DRAWING NUMBER A-GEN-277 SHEET 2 OF 2



APPROVALS

APPROVAL RECORDS ON FILE IN DRAWING FOR REVIEW AND APPROVAL
LOCATED AT: http://intranet/dept/engineering/drawings

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BREAK ALL SHARP EDGES UNLESS OTHERWISE NOTED.
APPLICABLE TOLERANCES UNLESS OTHERWISE NOTED.

COMMON FRACTIONS	±1/16
ONE DECIMAL	±.030
TWO DECIMALS	±.015
THREE DECIMALS	±.005
ANGLE	±1°-0"
SURFACE FINISH	125

DRAWN PER ANSI Y14.5M-1982
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UNLESS OTHERWISE NOTED

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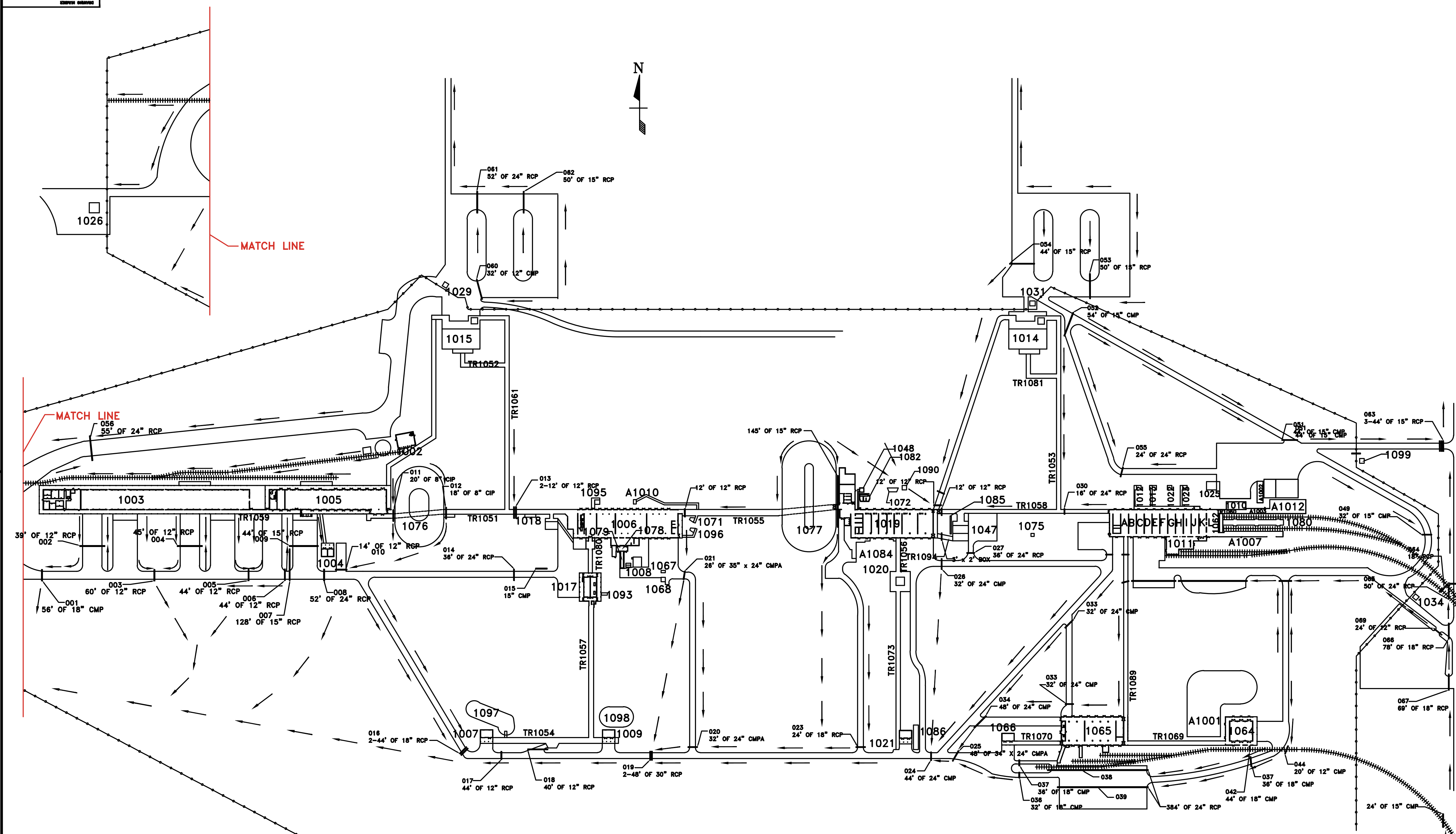
620-421-7400

TITLE
GENERAL AREA LAYOUT
POLLUTION CONTROL
SAMPLE POINT MAP

APPENDIX IV

AREA GEN BLDG. N/A SCALE NOTED

UNIT	SHEET	OF	DRAWING NUMBER	REV
F	2	2	A-GEN-277	0



N
MATCH LINE
MATCH LINE
1026
1029
1031
1015
1014
TR1052
TR1061
TR1081
TR1053
061 52' OF 24" RCP
062 50' OF 15" RCP
060 32' OF 12" CMP
054 44' OF 15" RCP
053 50' OF 15" RCP
052 54' OF 15" CMP
056 55' OF 24" RCP
1002
1003
1005
1076
1018
1095
A1010
1006
1078
1079
1071
1096
1077
1048
1082
1090
1072
1019
1085
1047
1075
TR1058
1025
1010
A1012
1080
1011
A1007
1099
1034
1004
1008
1067
1068
1017
1093
A1084
1020
TR1094
TR1051
TR1055
TR1059
TR1057
TR1073
TR1089
TR1054
TR1070
TR1069
1097
1098
1007
1009
1021
1086
1066
1065
A1001
1064
001 56' OF 18" CMP
002 39' OF 12" RCP
003 60' OF 12" RCP
004 45' OF 12" RCP
005 44' OF 12" RCP
006 44' OF 12" RCP
007 128' OF 15" RCP
008 52' OF 24" RCP
009 44' OF 15" RCP
010 14' OF 12" RCP
011 20' OF 8" CIP
012 18' OF 8" CIP
013 2-12' OF 12" RCP
014 36' OF 24" RCP
015 15" CMP
016 2-44' OF 18" RCP
017 44' OF 12" RCP
018 40' OF 12" RCP
019 2-48' OF 30" RCP
020 32' OF 24" CMPA
021 26' OF 35" x 24" CMPA
023 24' OF 18" RCP
024 44' OF 24" CMP
025 48' OF 34" X 24" CMPA
026 32' OF 24" CMP
027 36' OF 24" RCP
030 16' OF 24" RCP
033 32' OF 24" CMP
034 48' OF 24" CMP
036 32' OF 18" CMP
037 36' OF 18" CMP
038
039
042 44' OF 18" CMP
044 20' OF 12" CMP
049 32' OF 15" CMP
055 24' OF 24" RCP
063 3-44' OF 15" RCP
066 78' OF 18" RCP
067 69' OF 18" RCP
069 24' OF 12" RCP
145' OF 15" RCP
12' OF 12" RCP
384' OF 24" RCP
24' OF 15" CMP

GRAPHIC SCALE

DRAWN PER ANSI Y14.5M–1982
ALL DIMENSIONS ARE IN INCHES
UNLESS OTHERWISE NOTED

DR NO.	DESIGN ENGINEER	DATE	DESCRIPTION OF REVISION
A913	RDB	10–28–09	REVISED AND REDRAWN ON CAD

ORIGINALS

ORIGINAL SIGNED COPY STORED IN DESIGN VAULT AND SIGNED COPIES ARE AVAILABLE UPON REQUEST.

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COMMON FRACTIONS	±1/16
ONE DECIMAL	±.030
TWO DECIMALS	±.015
THREE DECIMALS	±.005
ANGLE	1°-0'-0"
SURFACE FINISH	125

SAFETY | PROJECT ENGINEER | DIR. OF ENGINEERING | DIR. OF PRODUCTION | MANAGER QUALITY

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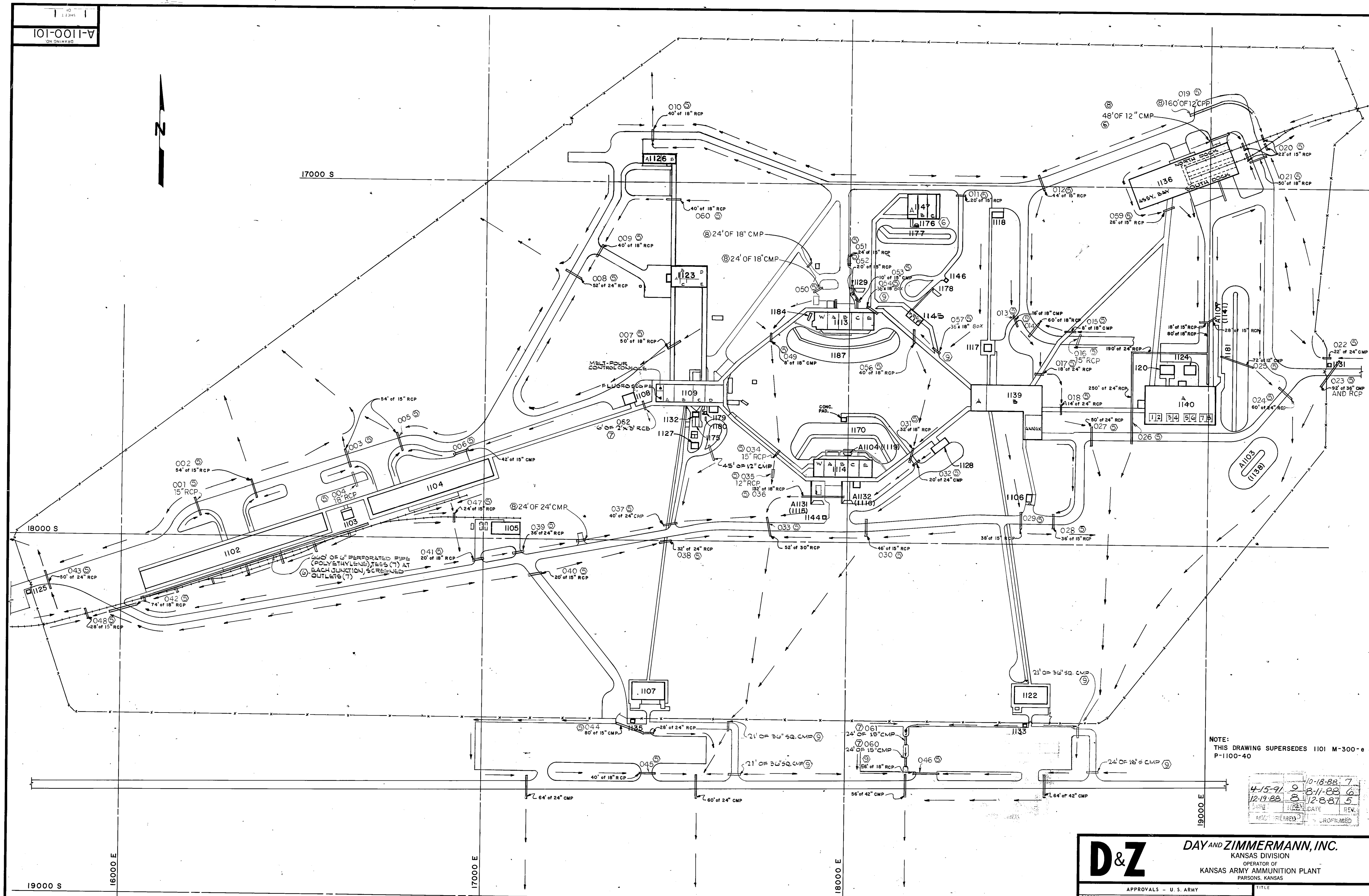
TITLE
1000 AREA WATERCOURSE
II–9G
APPENDIX V

AREA 1000 BLDG. ALL SCALE NOTED

SIZE	SHEET	OF	DRAWING NUMBER	REV
F	1	1	A–1000–41	5

A-1100-101



D.R. NO.	REV.	BY	DATE	REVISION	APPD.	ENGR.	PROD.	SAFETY	ARMY
6941	9	G. J. G.	3/12/91	DELETED (1) 36"x18" BOX 055 AT RAMP N.E. OF BLDG. 1115 & (1) 36"x18" BOX 058 AT RAMP N.W. OF BLDG. 1139. ADDED AT BLDG. 1107 PARKING LOT: (2) 21' OF 36" SQ. CMP. CMP. CULVERT 046 WAS 36' OF 18" RCP ADDED AT BLDG. 1122 PARKING LOT: (1) 21' OF 36" SQ. CMP & (1) 24' OF 18"φ CMP.	BLR	SNY LLP			4-8-91

D.R. NO	REV.	BY	DATE	DESCRIPTION OF REVISION	APPD	ENGR.	PROD.	SAFETY	ARMY
6350	8	G.G.	11/29/88	DELETED (1) 26' OF 18" CMP (019), ADDED (1) 160' OF 12" CPP (019), (1) 24' OF 24" CMP, (2) 24"x18" CMP, & (1) 48' OF 12" CMP	LDC	RAT SNY			15 DEC
6261	7	G.G.	9/6/88	ADDED (2) 24' OF 15" CMP (060 & 061) WEST OF 1122 AND (1) 6' OF 2'x3' RCB (062) WEST OF 1109	LDC	RAT			17 OCT
6175	6	G.G.	6/16/88	ADDED PERFORATED PIPE AT 1102, 30' OF 10" CMP AT 1136 & IDENT. BAYS	BLR				
5049	5	YXL	10/12/87	IDENTIFIED CULVERTS' NUMBERS	BLR	CHG			7 DEC
—	4	G.G.	9/10/87	REVISED AND REDRAWN					

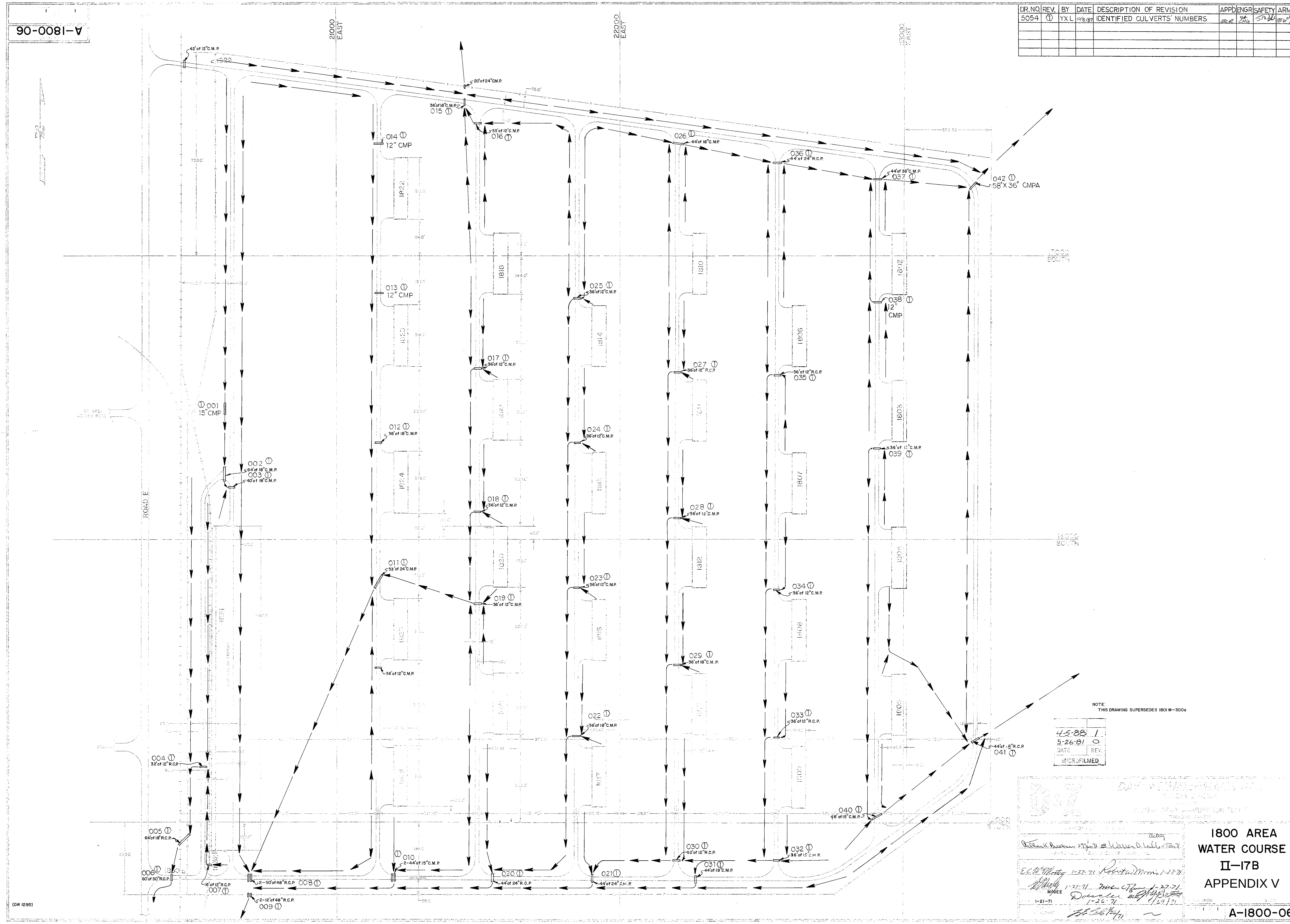
REF. DWG.

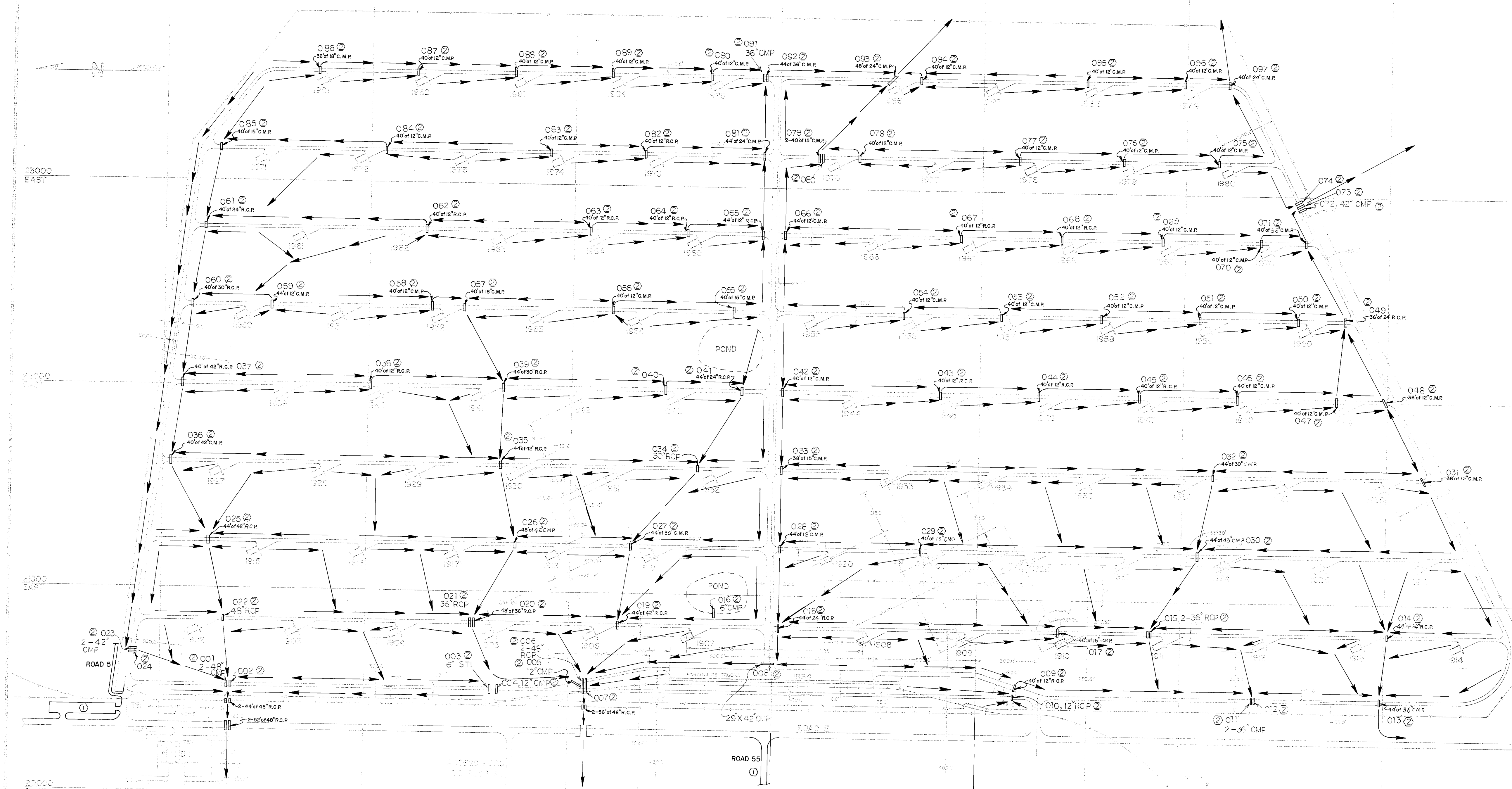
D&Z DAY AND ZIMMERMANN, INC.
KANSAS DIVISION
OPERATOR OF
KANSAS ARMY AMMUNITION PLANT
PARSONS, KANSAS

APPROVALS – U. S. ARMY
SAFETY: Ralph A. [signature] DATE — ~~COMMANDING OFFICER~~ ENGR: Don Dailey DATE 10-7-87
APPROVALS – DAY & ZIMMERMANN, INC.
SAFETY: [signature] DATE 9-30-87 — PLANT MANAGER DATE
ENGINEERING: [signature] DATE — PRODUCTION: [signature] DATE 10/1/87
DRAFTSMAN G.G. DATE 9/10/87 — CHECKER BLR DATE 9/23/87 — ENGINEER DATE
SCALE 1" = 100'-0" — CH. DRAFTSMAN DATE — BILL OF MATL.

TITLE
1100 AREA WATERCOURSE
APPENDIX V

AREA 1100 BLDG.
SHEET 1 OF 1
A-1100-101


A-1800-06
DR. NO. | REV. | BY | DATE | DESCRIPTION OF REVISION | APPD | ENGR | SAFETY | ARMY
5054 | ① | YXL | 1/8/87 | IDENTIFIED CULVERTS' NUMBERS
21000 EAST
22000 EAST
23000 EAST
ROAD E
001 ① 15" CMP
002 ① 64' of 18" C.M.P.
003 ① 40' of 18" C.M.P.
004 ① 32' of 12" R.C.P.
005 ① 64' of 18" R.C.P.
006 ① 60' of 30" R.C.P.
007 ① 16' of 12" R.C.P.
008 ① 2-50' of 48" R.C.P.
009 ① 2-12' of 48" R.C.P.
010 ① 2-44' of 15" C.M.P.
011 ① 53' of 24" C.M.P.
012 ① 36' of 18" C.M.P.
013 ① 12" CMP
014 ① 12" CMP
015 ① 36' of 18" C.M.P.
016 ① 33' of 12" C.M.P.
017 ① 36' of 12" C.M.P.
018 ① 36' of 12" C.M.P.
019 ① 36' of 12" C.M.P.
020 ① 44' of 24" R.C.P.
021 ① 44' of 24" C.M.P.
022 ① 36' of 18" C.M.P.
023 ① 36' of 12" C.M.P.
024 ① 36' of 12" C.M.P.
025 ① 36' of 12" C.M.P.
026 ① 44' of 18" C.M.P.
027 ① 36' of 18" R.C.P.
028 ① 36' of 12" C.M.P.
029 ① 36' of 18" C.M.P.
030 ① 36' of 12" R.C.P.
031 ① 44' of 18" C.M.P.
032 ① 36' of 15" C.M.P.
033 ① 36' of 12" R.C.P.
034 ① 36' of 12" C.M.P.
035 ① 36' of 12" R.C.P.
036 ① 44' of 24" R.C.P.
037 ① 44' of 36" C.M.P.
038 ① 12" CMP
039 ① 36' of 12" C.M.P.
040 ① 48' of 15" C.M.P.
041 ① 44' of 18" R.C.P.
042 ① 58" X 36" CMPA
20' of 24" C.M.P.
42' of 12" C.M.P.
36' of 12" C.M.P.
1802
1803
1804
1805
1806
1807
1808
1809
1810
1811
1812
1813
1814
1817
1818
1819
1820
1822
1824
1831
NOTE:
THIS DRAWING SUPERSEDES 1801 M-300e
4-5-88 | 1
5-26-81 | 0
DATE | REV.
MICROFILMED
1800 AREA
WATER COURSE
II-17B
APPENDIX V
(DR 1295)
A-1800-06



5-26-81 DATE MICROFILMED

NOTE:
THIS DRAWING SUPERSEDES 1901-300e

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KANSAS DIVISION
OPERATORS OF
KANSAS ARMY AMMUNITION PLANT
PARSONS, KANSAS

APPROVALS - DAY & ZIMMERMANN, INC.

1900 AREA WATER COURSE II—18B

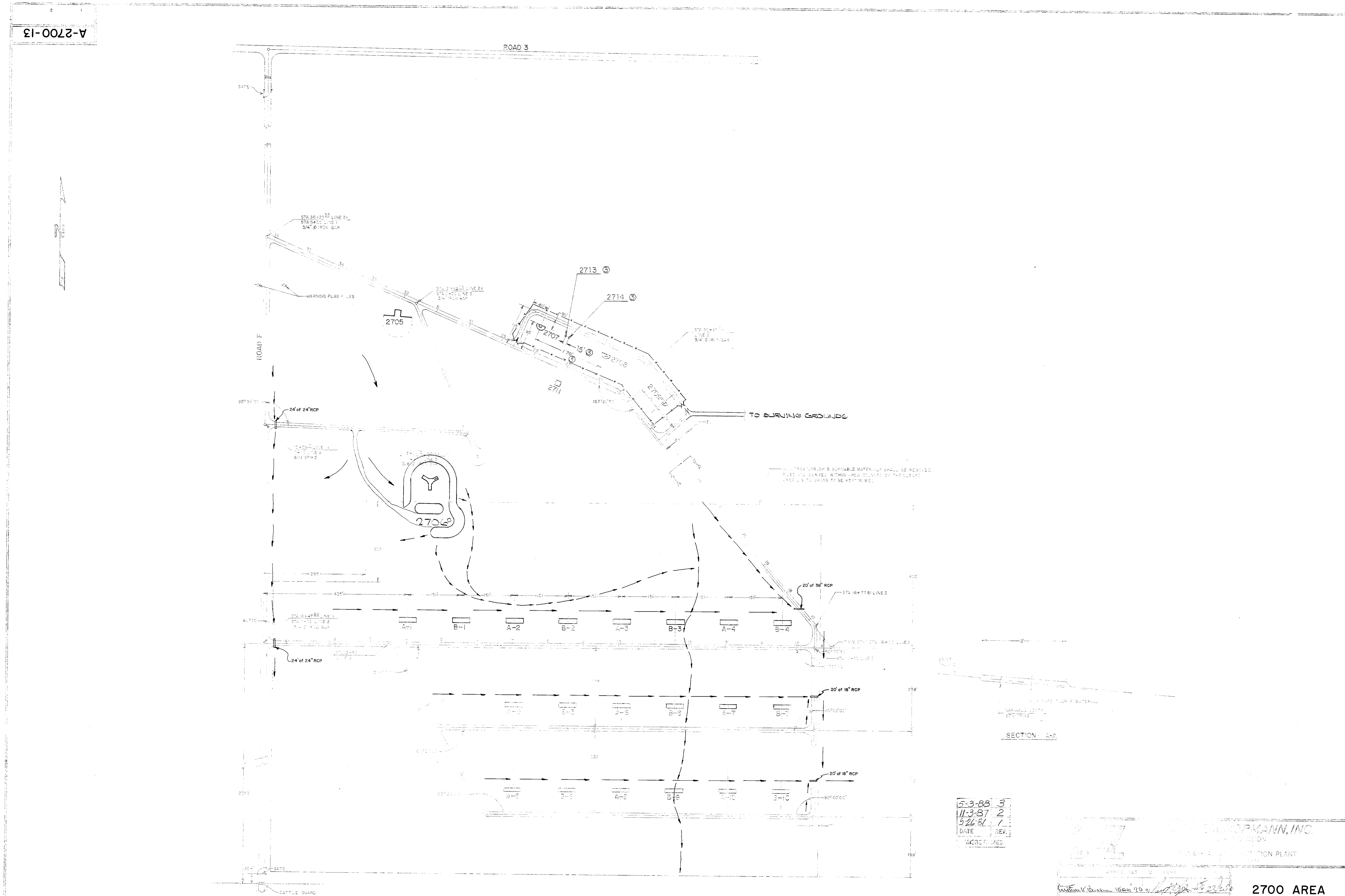
APPENDIX V

DR. NO.	REV.	BY	DATE	DESCRIPTION OF REVISION	APP'D.	ENGR.	PROD.	SAFETY	ARMY
5055	②	YXL		IDENTIFIED CULVERTS' NUMBERS					
1295	①	J.C.M.	1-24-72	RELOCATED ROAD 55, ADDED PARKING LOT & ROAD 5					

REF. DWG.

DRAFTSMAN McGEE
DATE 1-29-71

A-1900-05



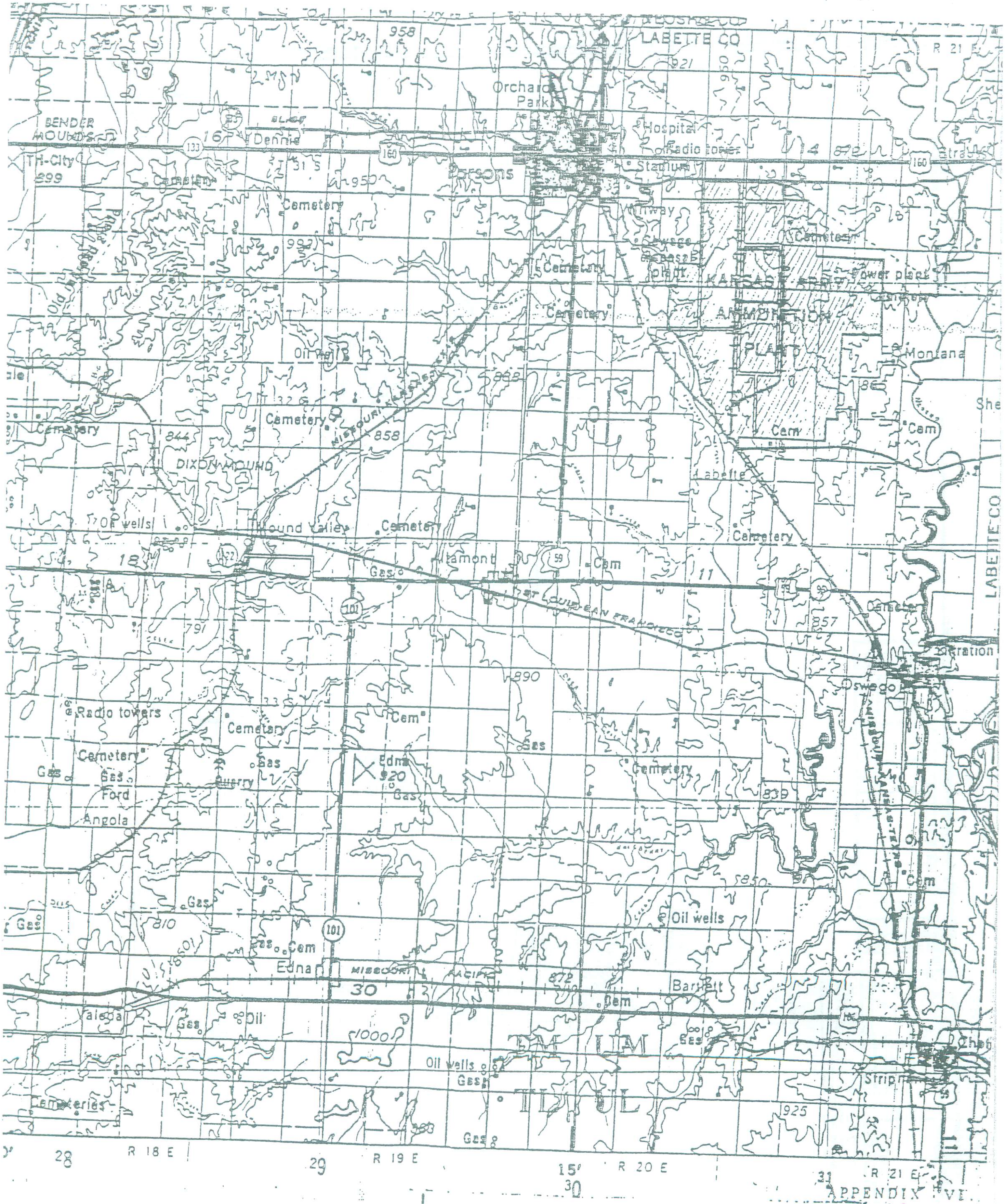
RD NO.	REV.	BY	DATE	DESCRIPTION OF REVISION	ENGR.	PROD.	SAFETY	ARMY
6086	③	SAM	2/12/88	ADDED STORAGE BOXES 2713 & 2714				
—	②	G.G.	7/1/87	REVISED TO AS BUILT CONDITION				
1656	①	M.S.	3-23-??	NO CHANGES THIS SHEET				

REF. DWG.

2700 AREA WATERCOURSE II-21C

FIGURE V

A-2700-13


LABETTE CO
Orchard Park
BENDER MOUNDS
Dennis
Hospital
Radio tower
Stadium
Parsons
Cemetery
KANSAS ARMY AMMUNITION PLANT
Power plant
Montana
Cem
DIXON MOUND
Oil wells
Mound Valley
Altamont
ST LOUIS SAN FRANCISCO
MISSOURI KANSAS TEXAS
Labette
Oswego
Radio towers
Edna
Ford
Angola
Quarry
Gas
Oil
Bartlett
MISSOURI PACIFIC
Valeda
Cemeteries
Strip
R 18 E
R 19 E
R 20 E
R 21 E
LABETTE CO
APPENDIX VI

Appendix VI

APPENDIX VII – LISTING OF FUEL OIL AND OTHER OIL SUBSTANCES STORAGE SITES

BUILDING NUMBER	BUILDING USE	SUBSTANCE STORED	NUMBER OF CONTAINERS	CONTAINER CAPACITY (GALLONS)	CONTAINER ELEVATION	TYPE OF CONTAINMENT SYSTEM	TYPE OF POSSIBLE SPILL	AMOUNT OF POTENTIAL SPILL (GALLONS)	DIRECTIONS OF FLOW *	DISCHARGE POINT
1020	Heating Plant	No. 2 fuel oil	One	2,000	Above	Double-Walled	Overflow, leaking, valve failure	2,000	Point B	Appendix V Page 11 of 25
1002	Boilerhouse	No. 5 fuel oil	One	15,000	Above	Concrete	Overflow, leaking, valve failure	15,000	Point B	Appendix V Page 11 of 25
1002	Boilerhouse	No. 2 fuel oil	One	5,000	Above	Concrete	Overflow, leaking, valve failure	5,000	Point B	Appendix V Page 11 of 25
1105	Boilerhouse	No. 2 fuel oil	One	5,000	Above	Concrete	Overflow, leaking, valve failure	5,000	Point B	Appendix V Page 12 of 25
1105	Boilerhouse	No. 5 fuel oil	Two	15,000 each	Above	Concrete	Overflow, leaking, valve failure	30,000	Point B	Appendix V Page 12 of 25
1139	Emergency Generator	No. 2 fuel oil	One	1,000 each	Above	Double-Walled	Overflow, leaking, valve failure	1,000	Point B	Appendix V Page 12 of 25

APPENDIX VIII – LISTING OF HAZARDOUS SUBSTANCE STORAGE SITES

BUILDING NUMBER	BUILDING USE	SUBSTANCE STORED	NUMBER OF CONTAINERS	CONTAINER CAPACITY (GALLONS)	TYPE OF POSSIBLE SPILL	AMOUNT OF POTENTIAL SPILL (GALLONS)	DIRECTION OF FLOW *	DISCHARGE POINT	REMARKS
1005	Production	Waste Bar Ink	Varies	55	Spillage, leakage	55	Point B	Appendix V	
1006	Production/Melt Pour	Acetone, paint thinner, alcohol, hydraulic oil, lubricating oil, Silicone, Freon,	Varies	55	Spillage, leakage	55	Point B	Appendix V	
1011	Production	Acetone, paint thinner, alcohol, hydraulic oil, lubricating oil	Varies	55	Spillage, leakage	55	Point B	Appendix V	
1019	Production	Acetone	Varies	55	Spillage, leakage	55	Point B	Appendix V	

APPENDIX VIII – LISTING OF HAZARDOUS SUBSTANCE STORAGE SITES

BUILDING NUMBER	BUILDING USE	SUBSTANCE STORED	NUMBER OF CONTAINERS	CONTAINER CAPACITY (GALLONS)	TYPE OF POSSIBLE SPILL	AMOUNT OF POTENTIAL SPILL (GALLONS)	DIRECTION OF FLOW *	DISCHARGE POINT	REMARKS
1102	Paint Shop	Paints/ Thinners	Varies	55	Spillage, leakage	55	Point B	Appendix V	
1103	Storage	Acetone, paint thinner, alcohol, hydraulic oil, lubricating oil	Varies	55	Spillage, leakage	55	Point B	Appendix V	
1108	Compressor House	Hydraulic oil, lubricating oil	Varies	55	Spillage, leakage	55	Point B	Appendix V	
1109	Production	Silicone, Freon, acetone	Varies	55	Spillage, leakage	55	Point B	Appendix V	
1113	Production	Acetone	Varies	55	Spillage, leakage	55	Point B	Appendix V	
1114	Production	Acetone	Varies	55	Spillage, leakage	55	Point B	Appendix V	
1136	Production	Acetone, paint thinners	Varies	1	Spillage, leakage	1	Point B	Appendix V	
1140	Production	Acetone	Varies	55	Spillage, leakage	55	Point B	Appendix V	

A – Neosho River
B – Plant Pond
C – Off Plant to Labette Creek
D – Off Plant to Unnamed Tributary to Neosho River

LOCATION	BUILDING USE	SUBSTANCE STORED	NUMBER OF CONTAINERS	CONTAINER CAPACITY (GALLONS)	TYPE OF POSSIBLE SPILL	AMOUNT OF POTENTIAL SPILL (GALLONS)	DIRECTION OF FLOW *	DISCHARGE POINT	REMARKS
Bldg. 2702	Explosive Waste Incinerator	Liquid petroleum gas	1	1,000	Sudden release of pressure	1,000	Point C	Appendix V Page 24 of 25	
Bldg. 2704	Change House	Propane	1	1,000	Sudden release of pressure	1,000	Pont D	Appendix V Page 24 of 25	
Bldg. 2712	Contaminated Waste Processor	Propane	1	1,000	Sudden release of pressure	1,000	Point D	Appendix V Page 24 of 25	

A – Neosho River
B – Plant Pond
C – Off Plant to Labette Creek
D – Off Plant to Unnamed Tributary to Neosho River

APPENDIX IX – LISTING OF HAZARDOUS WASTE STORAGE UNITS

LOCATION	BUILDING USE	SUBSTANCE STORED	RCRA NO.	CONTAINER CAPACITY (GALLONS)	TYPE OF POSSIBLE SPILL	AMOUNT OF POTENTIAL SPILL (GALLONS)	DIRECTION OF FLOW *	DISCHARGE POINT	REMARKS
General 1000 Area	Wastewater Treatment	Sump Sludge	K044	55	Spillage & Leakage	55	B	Appendix V	
General 1000 Area	Wastewater Treatment	Wet Sumpage	K044	8	Spillage & Leakage	8	B	Appendix V	
Bldg. 1005	Bar Coding Items	Waste Bar Code Ink	D001	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
Bldg. 1006	Melt Pour	Acetone Rags	D001	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
Bldg. 1006	Melt Pour	Alcohol/Ink/ Thinner/Recon. Rags	D001	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
Bldg. 1008	Wastewater Treatment	Diatomaceous Earth	D003	55	Spillage & Leakage	55	B	Appendix V	
Bldg. 1008	Wastewater Treatment	Spent Carbon	K045	55	Spillage & Leakage	55	B	Appendix V	
Bldg. 1011	Assembly/ Packout	Alcohol/Ink/ Thinner	D001	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
Bldg. 1011	Assembly/ Packout	Acetone Rags	D001	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
Bldg. 1011	Assembly/ Packout	Spent Aerosol Cans	D001	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
Bldg. 1011	Assembly/ Packout	Paint Waste	D001	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
Bldg. 1019	X-Ray/Assembly	Spent Aerosol Cans	D001	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
Bldg. 1019	X-Ray/Assembly	Acetone Rags	D001	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
Bldg. 1011	Wastewater Treatment	Spent Aerosol Cans	D001	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area

LOCATION	BUILDING USE	SUBSTANCE STORED	RCRA NO.	CONTAINER CAPACITY (GALLONS)	TYPE OF POSSIBLE SPILL	AMOUNT OF POTENTIAL SPILL (GALLONS)	DIRECTION OF FLOW *	DISCHARGE POINT	REMARKS
Bldg. 1109	Stenciling Operations	Inks/Thinners Acetone	D001, D5, D6, D7, D8, D035, F003	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
Bldg. 1109	Stenciling Operations	Acetone Rags	F003	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
Bldg. 1109	Cleaning Operations	Adsol Degreaser with Explosives	D001-D003	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
Bldg. 1109	Equipment Operations	Lithium Batteries	D002-D003	10 each	Spillage & Leakage	10 each	B	Appendix V	Satellite Storage Area
Bldg. 1113	Stenciling Operations	Inks/Thinners Acetone	D001, D5, D6, D7, D8, D035, F003	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
Bldg. 1113	Stenciling Operations	Acetone Rags	F003	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
Bldg. 1114	Stenciling Operations	Inks/ Thinners Acetone	D001, D5, D6, D7, D8, D035, F003	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
Bldg. 1114	Stenciling Operations	Acetone Rags	F003	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
Bldg. 1119	Sump Out Operations	Dry Sumpage	D003-D030	8	Spillage & Leakage	8	B	Appendix V	Satellite Storage Area
Bldg. 1127	Wastewater Treatment System	Spent Carbon	K045	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area

LOCATION	BUILDING USE	SUBSTANCE STORED	RCRA NO.	CONTAINER CAPACITY (GALLONS)	TYPE OF POSSIBLE SPILL	AMOUNT OF POTENTIAL SPILL (GALLONS)	DIRECTION OF FLOW *	DISCHARGE POINT	REMARKS
Bldg. 1127	Wastewater Treatment System	Diatomaceous Earth	D003	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
Bldg. 1127	Wastewater Treatment System	Sump Sludge	D030-K044	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
Bldg. 1127	Wastewater Treatment System	Wet Sumpage	D030-K044	8	Spillage & Leakage	8	B	Appendix V	Satellite Storage Area
Bldg. 1127	Wastewater Treatment System	Anthracite	D003	8	Spillage & Leakage	8	B	Appendix V	Satellite Storage Area
Bldg. 1136	Stenciling Operations	Inks/Thinners Acetone	D001, D5 D6, D7, D035, F003	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
Bldg. 1136	Stenciling Operations	Acetone Rags	F003	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
General 1100 Area	Cleaning Operations	Freon	F001	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
General 1100 Area	Cleaning Operations	Acetone/Freon Silicone	F001-F003	55	Spillage & Leakage	55	B	Appendix V	Satellite Storage Area
1800 Area (1813)[a]	Hazardous Waste Storage Magazine	Varies **	Varies **	55	Spillage & Leakage	55	B	Appendix V	RCRA Permitted Storage Area (Wastes Without Free Liquids)
1900 Area (1914, 1915, 1916, 1917, 1958, 1976)[b]	Hazardous Waste Storage Igloos (Liquid)	Varies **	Varies **	Varies	Spillage & Leakage	55	B	Appendix V	RCRA Permitted Storage Area (Wastes Without Free Liquids)
1900 Area (1961, 1974)[c]	Hazardous Waste Storage Igloos (Solid)	Varies **	Varies **	Varies	Spillage & Leakage	55	B	Appendix V	RCRA Permitted Storage Area (Wastes Without Free Liquids)

LOCATION	BUILDING USE	SUBSTANCE STORED	RCRA NO.	CONTAINER CAPACITY (GALLONS)	TYPE OF POSSIBLE SPILL	AMOUNT OF POTENTIAL SPILL (GALLONS)	DIRECTION OF FLOW *	DISCHARGE POINT	REMARKS
2700 Area (2707, 2708, 2709)	Hazardous Waste Storage Igloos (Liquid)	Varies **	Varies **	Varies	Spillage & Leakage	55	D	Appendix V	RCRA Permitted Storage Area (Wastes Without Free Liquids)

* A – Neosho River
B – Plant Pont
C – Off Plant to Labette Creek
D – Off Plant to Unnamed Tributary to Neosho River

** Could be any of the items listed that contain free liquids.
*** Could be any of the items listed that do not contain free liquids.
[a] To be replaced by 1816
[b] To be replaced by 1936, 1942, 1967, 1969, 1970, and 1979
[c] To be replaced by 1934 and 1935

1,1,1,trichloroethane – (See Emergency Response Guidebook Guide 74):
Nonflammable colorless liquid with a sweet odor. Vapor is irritating to eyes, nose and throat; liquid is irritating to the skin and eyes. Tolerance: 350 parts per million (ppm) in air. Reportable Quantity is 1,000 pounds. In case of contact with skin, eyes, or clothing, immediately flush skin and eyes with large amounts of water and remove all contaminated clothing. Wash skin with soap and water. Air/vapor mixtures may explode when ignited. Fire may produce irritating or poisonous gases. To fight fire: CO2, dry chemical, or foam.

2-Ethoxyethanol – (See Emergency Response Guidebook Guide 26):
Colorless liquid, practically odorless. Flammable-Combustible material; may be ignited by heat, sparks, or flame. May be poisonous if inhaled or absorbed through the skin. Moderate fire risk; fire may produce irritating or poisonous gasses. Tolerance: 5 ppm toxic by skin absorption. Reportable Quantity: 1,000 pounds. In case of contact with skin, eyes, or clothing, immediately flush eyes with large amounts of water and remove all contaminated clothing. Wash skin with soap and water. To fight fire: Dry Chemical, CO2, water spray/fog, or alcohol-resistant foam.

Acetic Acid – (See Emergency Response Guidebook Guide 29):
Moderate fire risks. Pure acetic acid is moderately toxic by ingestion and inhalation. Strong irritant to skin and tissue. Tolerance: 10 ppm in air. Reportable Quantity: 1,000 pounds. In case of contact with skin, eyes, or clothing, immediately flush skin and eyes with large amounts of water and remove all contaminated clothing. Moderate explosion hazard when exposed to flame. Emits toxic fumes when heated to decomposition. To fight fire: CO2, dry chemical regular foam, water mist.

Acetone – (See Emergency Response Guidebook Guide 26):
Flammable, dangerous fire risk. Explosive limits in air are 2.6 to 12.8 percent. Tolerance: 750 ppm in air. Reportable Quantity: 1,000 pounds. Narcotic in high concentrations. Low to moderate toxicity by ingestion and inhalation. To fight fire: CO2, dry chemical, alcohol resistant foam, water spray.

Acetonitrile – (See Emergency Response Guidebook Guide 28):
Poisonous; may be fatal if inhaled, swallowed, or absorbed through the skin. Flammable/combustible material; may be ignited by heat, sparks or flame. Vapors may travel to a source of ignition and flash back. Container may explode in heat of fire. Tolerance: 40 ppm in air. Reportable Quantity: 5,000 pounds. In case of contact, immediately flush eyes and skin with large amounts of water an remove all contaminated clothing. To fight fire: Dry chemical, CO2, water spray, or alcohol-resistant foam.

Antimony Sulfide – (See Emergency Response Guidebook Guide 53):
Explosion risk in contact with oxidizing Sulfide materials. Toxic. Tolerance (as Antimony), 0.5 mg per cubic meter of air. Emits highly toxic fumes of oxides of sulfur and antimony when heated to decomposition. In case of contact with skin, eyes, or clothing, immediately flush eyes and skin with large amounts of water and remove all contaminated clothing. Will react with water or steam to produce toxic and flammable vapors.

Barium Nitrate – (See Emergency Response Guidebook Guide 42):
Strong oxidizing agent. Dangerous fire risks in contact with organic materials. Toxic. Tolerance: 0.5 mg per cubic meter in air (as Barium). In case of contact with skin, eyes, or clothing, immediately flush eyes and skin with large amounts of water and remove contaminated clothing. To fight fire: Water only; do not use dry chemical, CO2, or Halon.

Black Powder – (See Emergency Response guidebook Guides 46 and 50):
Sensitive to heat. Dangerous fire and explosion hazard.

Composition A-5 – (See Emergency Response Guidebook Guide 46):
An RDX based explosive (91 percent RDX and 9 percent wax). See Cyclonite.

Composition B – (See Emergency Response Guidebook Guide 46):
An RDX and TNT based explosive (60 percent RDX and 40 percent TNT). See Cyclonite and Trinitrotoluene.

Composition CH-6 – (See Emergency Response Guidebook Guide 46):
An RDX based explosive (97.5 percent RDX, 1.5 percent calcium stearate, 0.5 percent graphite, and 0.5 percent polyisobutylene). See Cyclonite.

Cyclohexanone – (See Emergency Response Guidebook Guide 26):
Moderate fire risk. Toxic via inhalation and skin contact. Tolerance: 25 ppm in air. Reportable Quantity: 5,000 pounds. In case of contact with eyes, skin, or clothing, immediately flush eyes with large amounts of water, wash skin with soap and water, and remove all contaminated clothing. To fight fire: Dry chemical, CO2, water spray, or alcohol resistant foam.

Cyclonite (RDX) – (See Emergency Response Guidebook Guide 46):
High explosive, easily initiated by mercury fulminate. Toxic by inhalation and skin contact. Tolerance: 1.5 mg per cubic meter of air. One and one-half times as powerful at TNT.

Dibutylphthalate:
Combustible. Toxic. Tolerance: 5 mg per cubic meter of air.

Diphenylamine:
Combustible. Toxic by ingestion. Tolerance: 10 mg per cubic meter of air.

Dinitrotoluene (DNT) – (See Emergency Response Guidebook Guide 56):
Poisonous, may be fatal if inhaled, swallowed, or absorbed through the skin. Contact may cause burns to skin and eyes. Tolerance: 1.5 mg per cubic meter of air. Reportable Quantity: 10 pounds. May explode from friction, heat, or contamination. In case of contact with skin, eyes, or clothing, immediately flush eyes and skin with large amounts of water and remove all contaminated clothing. Speed in removing material from the skin is of extreme importance. To fight fire: Dry chemical, CO2, water spray or regular foam.

Freon:
Non-irritating vapors. Low toxicity, non-flammable, non-explosive, non-corrosive, and essentially stable and inert. Emits highly toxic fumes when heated to decomposition.

HMX – (See Emergency Response Guidebook Guide 46):
Toxic vapors are emitted during decomposition. Must not be confined if burning. Avoid shick, heat, electrostatic discharge, impact and friction.

Lead Azide:
Severe explosion risk; detonators at 350 degrees Celsius (660 degrees Fahrenheit). Highly toxic. Tolerance: 0.15 mg per cubic meter of air (as lead). Violent reaction with brass and calcium sterate. Emits highly toxic fumes of lead when heated.

Lead Styphnate:
Dangerous explosion risk, detonates at 260 degrees Celsius (500 degrees Fahrenheit). An initiation explosive.

Lead Thiocyanate:
Toxic by ingestion and inhalation. Tolerance: 0.15 mg per cubic meter of air (as lead).

Lithium Batteries – (See Emergency Response Guidebook Guide 40):
Lithium may ignite itself if exposed to air and may reignite after a fire is extinguished. Violent reaction with water produces flammable gas. Fire may produce irritating or poisonous gases. Contact may case burns to skin and eyes. In case of contact with skin, eyes, or clothing, immediately wipe material from the skin and flush eyes and skin with large amounts of water. Remove all contaminated clothing. To fight fire: Use dry sand, G-1 graphite powder, dry chemical, soda ash, or lime.

M10 Propellant:
Toxic. Avoid inhalation and ingestion. Highly combustible and easily ignited. Protect from fire, sparks, and extreme heat.

Mercury – (See Emergency Response Guidebook Guide 60):
Highly toxic by skin absorption and inhalation of fumes or vapor. Absorbed by respiratory and intestinal tracts. Spillage may be a toxic hazard due to droplet proliferation. Clean up requires special care. Tolerance: 0.05 mg per cubic meter of air (as mercury). Reportable Quantity: 1,000 pounds. Emits highly toxic fumes when heated.

Methanol – (See Emergency Response Guidebook Guide 28):
Flammable, dangerous fire risk. Toxic by ingestion (causes blindness). Tolerance: 200 ppm in air. Reportable Quantity: 5,000 pounds. Explosive limits in air: 6 to 36.5 percent by volume. To fight fire: Dry chemical, CO2, water spray, or alcohol-resistant foam.

Methyl Isobutyl Ketone – (See Emergency Response Guidebook Guide 26):
Avoid ingestion and inhalation. Flammable, dangerous fire risk. Explosive limits in air: 1.4 to 7.5 percent. Tolerance: 100 ppm in air. Reportable Quantity: 100 pounds. Absorbed by skin. To fight fire: Alcohol-resistant foam, CO2, dry chemical, water spray.

Nitrocellulose – (See Emergency Response Guidebook Guides 26, 32, and 33):
Flammable, dangerous fire and explosion risk. Somewhat less flammable when wet. Maybe poisonous if inhaled or absorbed through the skin. Fire may produce irritating or poisonous gasses. May burn rapidly with flare-burning effect. Dried out material may explode if exposed to heat, flame, or shock; keep material wet with water. In case of contact with skin, eyes, or clothing, immediately flush eyes with large amounts of water, wash skin with soap and water, and remove all contaminated clothing. To fight fire: Dry chemical, CO2, water spray, or alcohol-resistant foam.

Octol – (See Emergency Response Guidebook Guide 46):
An HMX and TNT based explosive. (70 percent HMX and 30 percent TNT). See HMX and/or TNT.

PBXN-5:
An HMX based explosive. See HMX.

Petroleum Naptha – (See Emergency Response Guidebook Guide 27):
Flammable, dangerous fire risk. Explosive limits in the air: 1 to 6 percent. To fight fire: Foam, CO2, dry chemical, and water spray.

Potassium Chlorate – (See Emergency Response Guidebook Guide 31 for Solution and Guide 35 for Solid):
Forms explosive mixture with combustible materials. Strong oxidizing agent. Vapors or dust may be irritating and fire may produce irritating or poisonous gases. Contact may cause burns to skin and eyes. In case of contact with skin, eyes, or clothing, immediately flush eyes with large amounts of water, wash skin with soap and water, and remove all contaminated clothing. To fight fire: SOLIDS – Water only, no dry chemical, CO2, or Halon; SOLUTIONS – Dry chemical, CO2, water spray, or regular foam.

RDX:
See Cyclonite.

Sodium Hydroxide – (See Emergency Response Guidebook Guide 60):
Corrosive to tissue in presence of moisture; strong irritant to tissue (eyes, skin, mucous membranes). Highly toxic by ingestion. Tolerance: 2 mg per cubic meter of air. Reportable Quantity: 1,000 pounds. Treatment and Antidotes: Quickly remove material from skin with a deluge shower. Remove clothing. Use plenty of water. If eyes are involved, flush with large amounts of water for at least 15 minutes. Call medical personnel.

Sodium Nitrate – (See Emergency Response Guidebook Buide 35):
Fire risk near organic materials. Ignites on friction and explodes when shocked or heated to 537 degrees Celsius (1,000 degrees Fahrenheit). Toxic by ingestion. To fight fire: Dry chemical, water spray or regular foam.

Sodium Sulfhydrate:
Contact with acids results in evolution of toxic gases.

Sulfuric Acid – (See Emergency Response Guidebook Guide 39):
Toxic; strong irritant to tissue. Tolerance: 1 mg per cubic meter of air. Reportable Quantity: 1,000 pounds. Use great caution in mixing with water due to heat evolution that causes explosive splattering. Always add the acid to water, NEVER the reverse. Very reactive, dissolves most metals; Concentrated acid oxidizes, dehydrates or sulfonates most organic compounds, often causes charring. To fight fire: Dry chemical, CO2.

TAL 1104:
An RDX based explosive. See Cyclonite.

Tetracene:
Explodes when shocked, reacts with oxidizing materials.

Tetryl:
Dangerous fire and explosion risk. Skin irritant, absorbed by the skin. Tolerance: 1.5 mg per cubic meter of air. In case of contact with skin, eyes, or clothing, immediately flush eyes and

skin with large amounts of water and remove all contaminated clothing.

TNT:
See Trinitrotoluene.

Toluene – (See Emergency Response Guidebook Guide 27):
Flammable, dangerous fire risk. Explosive limits in air are 1.27 percent. Toxic by ingestion, inhalation, and skin absorption. Tolerance 100 pm in air. Reportable Quantity: 1,000 pounds. To fight fire: Foam, CO2, dry chemical.

Trichloroethylene – (See Emergency Response Guidebook Guide 74):
Toxic by inhalation. Tolerance: 50 ppm in air. Reportable Quantity: 100 pounds.

Trinitrotoluene (TNT):
Toxic by ingestion, inhalation, and skin absorption. Tolerance: 0.5 mg per cubic meter of air. Flammable, dangerous fire risk; moderate explosion risk; will detonate only if vigorously shocked or heated to 232 degrees Celsius (450 degrees Fahrenheit).

Zirconium Rings:
Incendiary Agent. Low toxicity; high fire hazard; chemical reaction with oxidizers. Auto ignition temperature is 260 degrees Fahrenheit. Explosion temperature is unknown.

APPENDIX XI – EQUIPMENT AVAILABLE FOR CONTROL AND CONTAINMENT OF SPILLS

Equipment	Use	Number	Location
Standard Industrial Absorbents	Absorbent	Varies	1000 Area
55-gallon Drums	Storage	Varies	Various Locations
Safety Glasses	Personal Protection	1 per operator	Operator
Disposal Respirator	Personal Protection	1 per operator	Operator
Chemical Cartridge Respirators	Personal Protection	1 per operator	Operator
Fire Extinguishers	Fire Fighting	Varies	Each Vehicle
Protective Clothing	Personal Protection	1 per operator	1000 Area
Hard Hats	Personal Protection	1 per operator	Operator
Hearing Protection	Personal Protection	1 per operator	Various Locations
Gloves	Personal Protection	Varies	Operator
Emergency Shower and Eyewash	Personal Protection	1 per operator	1100 Area
First Aid Equipment and Supplies	Personal Protection	Varies	Various Locations

APPENDIX XII

E. IDENTIFICAATION OF INSTALLATION RESPONSE TEAM

		** Plant Extension/ Cell Phone	Off-Plant Telephone
1.	On-Scene Coordinator (Primary Emergency Coordinator)		
	Dean Cramer 1601 Clark Parsons, Kansas	532 620-778-3763	620-421-4252
	First Alternate		
	Lisa Miller 106 Michigan St. Oswego, Kansas	495 620-423-4794	620-788-1594
2.	Installation Response Crew Supervisor		
	Terry Ball 110 N. 27th Parsons, Kansas	508 620-778-1262	620-778-1262
3.	Environmental Coordinator		
	Dean Cramer 1601 Clark Parsons, Kansas	532 620-778-3763	620-421-4252
4.	Industrial Hygienist		
	Lisa Miller 106 Michigan St. Oswego, Kansas	495 620-423-4794	620-788-1594
5.	Safety Advisor		
	Lisa Miller 106 Michigan St. Oswego, Kansas	495 620-423-4794	620-788-1594

** Plant Telephone: 620-421-7400

APPENDIX XIII – HAZARDOUS WASTE FACILITY INSPECTION

CODES: A = ACCEPTABLE, UA = UNACCEPTABLE, N/A = NOT APPLICABLE

INSPECTOR NAME	TITLE	BADGE NUMBER	DATE OF INSPECTION		
LOCATION			TIME OF INSPECTION		
ITEM	TYPE OF PROBLEMS		A	UA	N/A
1. CONTAINER PLACEMENT AND STACKING	AISLE SPACE SUFFICIENT, HEIGHT OF STACKS				
2. SEALING OF CONTAINERS	OPEN LIDS				
3. LABELING OF CONTAINERS	IMPROPER IDENTIFICATION AND DATE MISSING				
4. CONTAINERS	CORROSION, LEAKAGE, STRUCTURAL DEFECTS				
5. SEGREGATION OF INCOMPATIBLE WASTES	STORAGE OF INCOMPATIBLE WASTES IN SAME AREA				
6. PALLETS	DAMAGED (E.G., BROKEN WOOD, WARPING NAILS MISSING)				
7. FENCE, GATE, AND LOCK	CORROSION, DAMAGE TO FENCE, STICKING OR CORRODING LOCK				
8. BASE OR FOUNDATION	CRACKS, SPALLING, UNEVEN SETTLEMENT EROSION, AND/OR WET SPOTS				
9. DIKES	CRACKS AND/OR DETERIORATION				
10. WARNING SIGNS	DAMAGED OR MISSING				
11. VISIBLE DEBRIS	REMOVE ALL VISIBLE DEBRIS				
12. SOIL COVER (2 FEET)	EROSION				
OBSERVATION (INCLUDE ITEM NUMBER)					
DATE AND NATURE OF REPAIRS/REMEDIAL ACTION					

APPENDIX XIV

LIST OF SPILL EVENTS CONTACT

Spill events will be reported immediately by telephonic means to:

1. National Response Center: 1-800-424-8802

   U.S. Coast Guard
   (G-TGC-2) 2100 2nd Street SW
   Room 2611
   Washington, DC

2. Kansas Department of Health and Environment

   1-785-368-7301 (Weekdays)
   1-785-296-1679 (Evenings & Weekends)
   1000 SW Jackson
   Topeka, KS

These contact numbers will ensure that a KDHE representative is contacted concerning the spill event call.

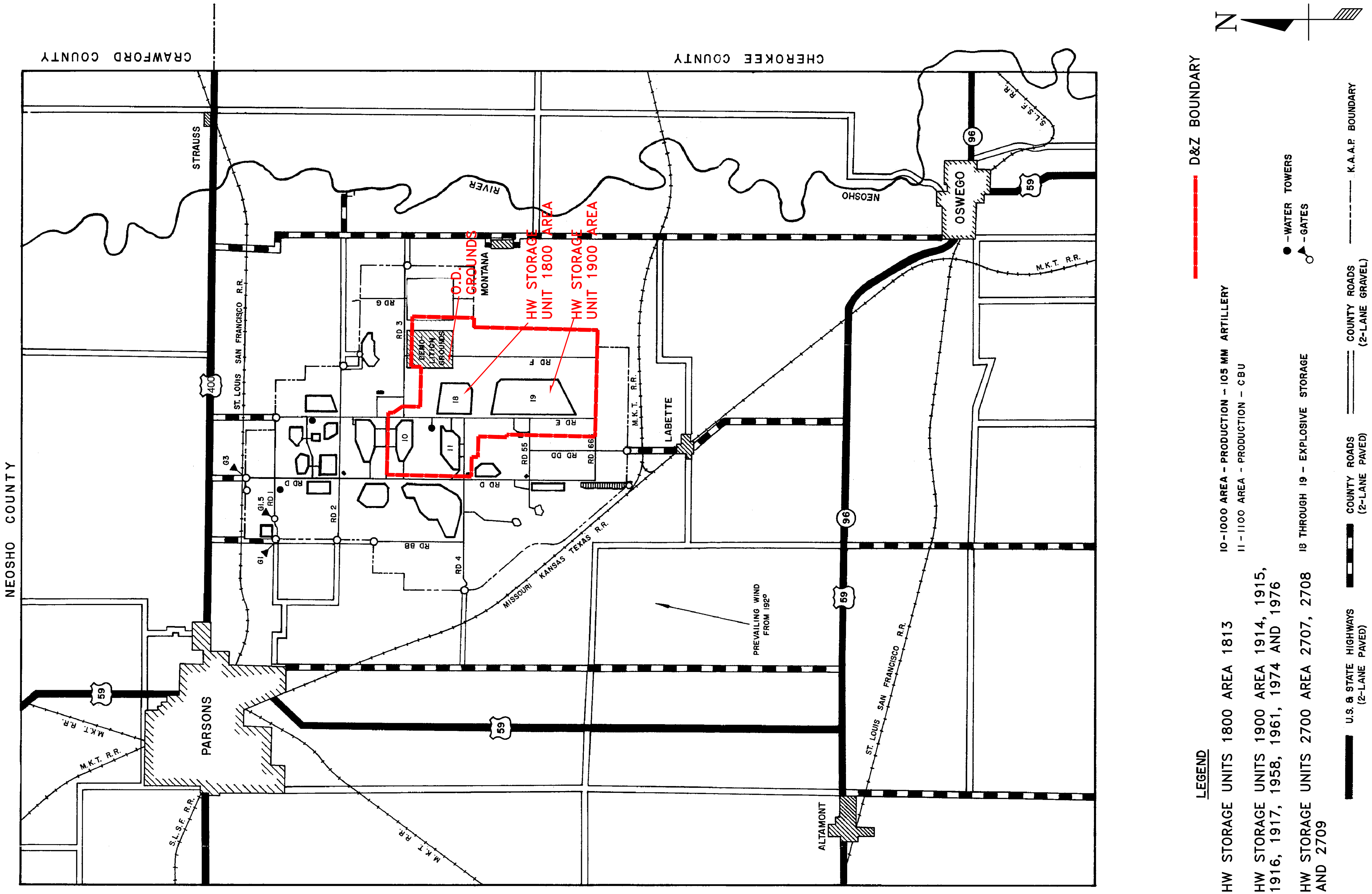
Field personnel may be called in addition to or in lieu of the above since they would probably be assigned investigation of the spill occurrence. The District Geologist for this area is Geology Associate, Renee Brown, 1500 W. 7th, Chanute, Kansas 66720. Her office telephone is 1-620-431-2390, and home telephone is 1-785-338-0568.

4. EPA Regional Office
   Lenexa, Kansas

   24-Hour Spill Number 1-913-281-0991
   Routine Spill Number 1-913-236-3888

5. Labette County Emergency Response Committee
   Labette County Courthouse
   Oswego, Kansas

   1-620-421-5255
   1-620-421-1400 (Labette County Sheriff)



D&Z PROPRIETARY

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SPECIAL NOTES

STAMP MARK OR ETCH PIECE MARK ON EACH PART.

BREAK ALL SHARP EDGES UNLESS OTHERWISE NOTED.

APPLICABLE TOLERANCES UNLESS OTHERWISE NOTED.

COMMON FRACTIONS	±1/16
ONE DECIMAL	±.030
TWO DECIMALS	±.015
THREE DECIMALS	±.005
ANGLE	1°-0'-0"
SURFACE FINISH	125

Day&Zimmermann
We do what we say.

DAY & ZIMMERMANN KANSAS LLC
23018 ROOKS ROAD
PARSONS, KANSAS 67357

FACILITY MAP
FIGURE B-1
APPENDIX XV

AREA GENERAL | SCALE NOTED

SIZE	SHEET	OF	DRAWING NUMBER	REV
F	2	10	A-GEN-271	1

APPENDIX XVI

EVACUATION ROUTE

The most direct route to the plant primary entrance gate will be taken from all areas in the event of an emergency situation requiring evacuation from the plant area.

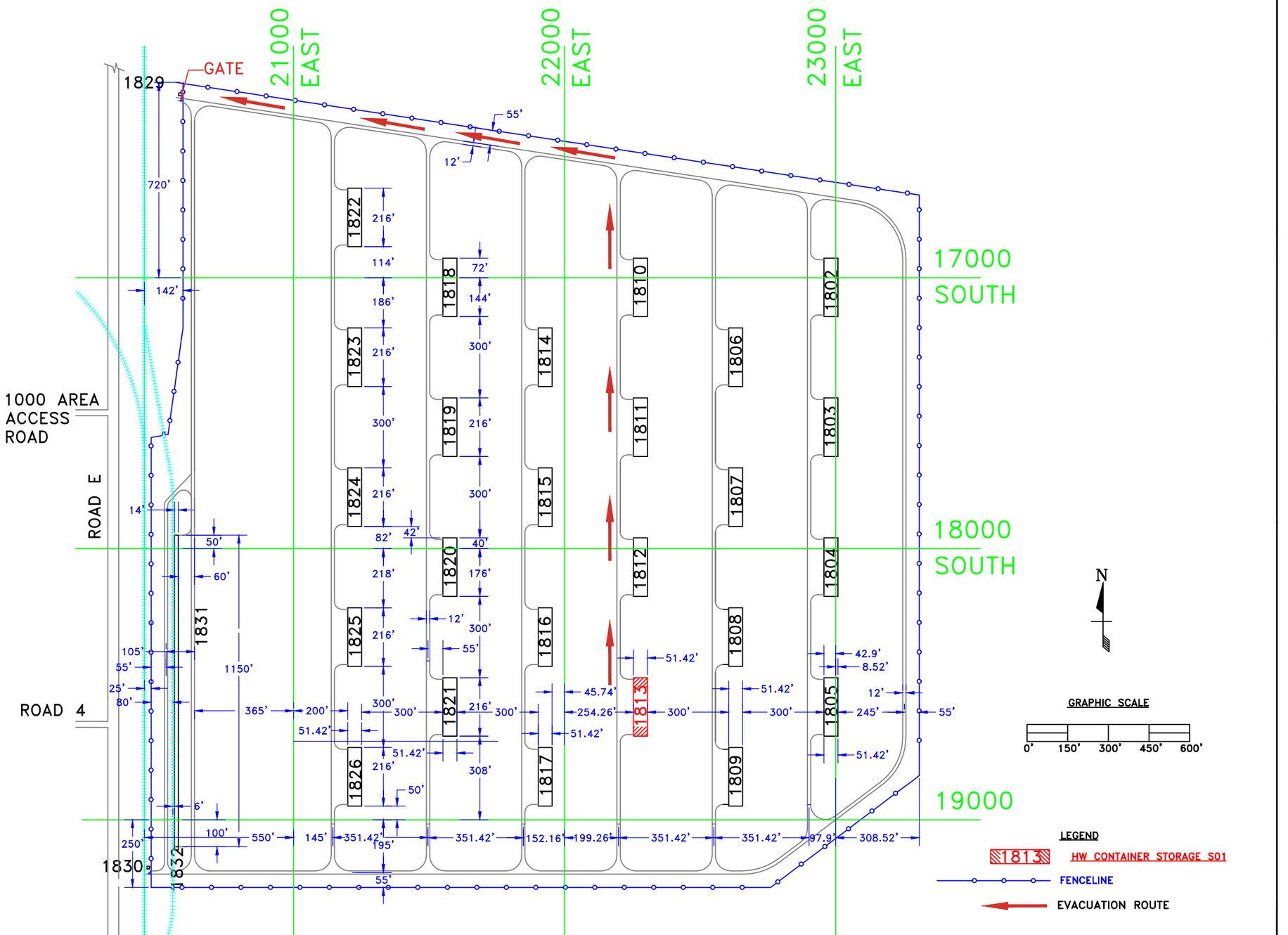
All traffic signs and regulations will be followed. Speed limits will be as posted.

Plant personnel or traffic barricades will be set up to direct traffic around the emergency area.

APPENDIX XVII

EVACUATION ROUTES
For Hazardous Waste Storage Areas

1800 Area	……	The HW storage magazine has four (4) overhead doors. In emergency situations, exit out the closest open door and travel the most direct safe route to the area perimeter gate. (See annotated drawing.)
1900 Area	……	Each HW storage igloo has only one entrance/exit. In emergency situations, exit out the door and travel the most direct safe route to the area perimeter gate. (See annotated drawing.)
2700 Area	……	Each HW storage igloo has only one entrance/exit. In emergency situations, exit out the door and travel the most direct safe route to the area entrance. (See annotated drawing.)



SPECIAL NOTES

STAMP MARK OR ETCH PIECE MARK ON EACH PART.

BREAK ALL SHARP EDGES UNLESS OTHERWISE NOTED.

APPLICABLE TOLERANCES UNLESS OTHERWISE NOTED.

COMMON FRACTIONS	±1/16
ONE DECIMAL	±.030
TWO DECIMALS	±.015
THREE DECIMALS	±.005
ANGLE	1°-2°-4°
SURFACE FINISH	125

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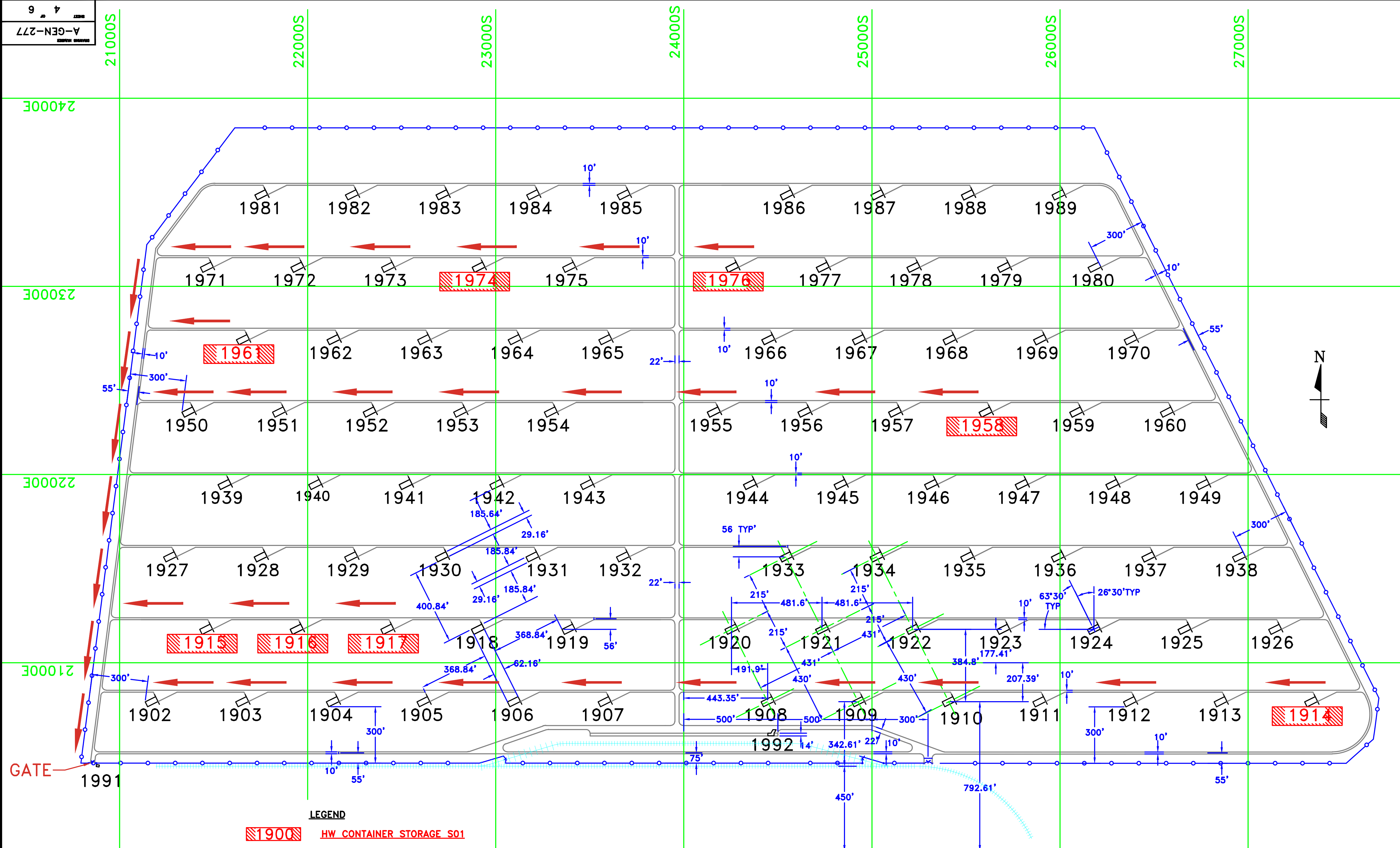
TITLE
D&Z
HW CONTAINER STORAGE S01
1800 AREA
EVACUATION ROUTE
APPENDIX XVII

AREA 1800 BLDG. SCALE 1"=150'

SIZE	SHEET	OF	DRAWING NUMBER	REV
F	3	6	A-GEN-277	0

A-GEN-277
SHEET 4 OF 6



LEGEND

▨ 1900 HW CONTAINER STORAGE S01

FENCELINE

EVACUATION ROUTE

GRAPHIC SCALE

0' 150' 300' 450' 600'

D&Z PROPRIETARY

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SPECIAL NOTES

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APPLICABLE TOLERANCES UNLESS OTHERWISE NOTED.

COMMON FRACTIONS	±1/16
ONE DECIMAL	±.030
TWO DECIMALS	±.015
THREE DECIMALS	±.005
ANGLE	1°-0'-0"
SURFACE FINISH	125

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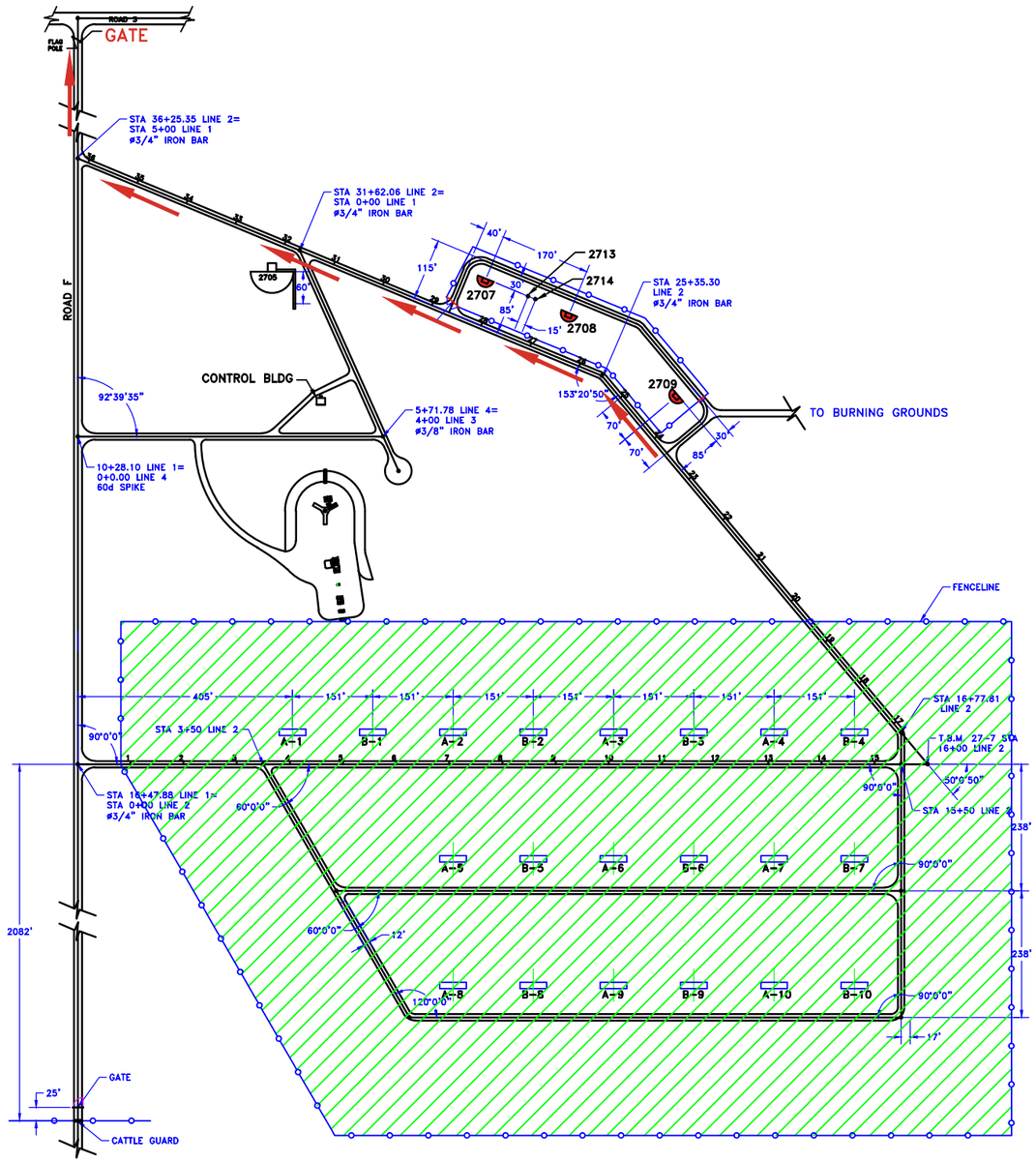
TITLE
D&Z
HW MANAGEMENT FACILITIES
HW STORAGE
1900 AREA
EVACUATION ROUTES
APPENDIX XVII

AREA 1900 BLDG. SCALE NOTED

SIZE	SHEET	OF	DRAWING NUMBER	REV
F	4	6	A-GEN-277	0



LEGEND

- HW CONTAINER STORAGE S01
- HW TREATMENT X01
- FENCELINE
- EVACUATION ROUTE

SPECIAL NOTES

STAMP MARK OR ETCH PIECE MARK ON EACH PART.

BREAK ALL SHARP EDGES UNLESS OTHERWISE NOTED.

APPLICABLE TOLERANCES UNLESS OTHERWISE NOTED.

COMMON FRACTIONS	±1/16
ONE DECIMAL	±.030
TWO DECIMALS	±.015
THREE DECIMALS	±.005
ANGLE	±0°0'
SURFACE FINISH	125

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TITLE
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2700 AREA LAYOUT
EVACUATION ROUTES
APPENDIX XVII

AREA 2700 BLDG. SCALE NOTED

SIZE	SHEET OF	DRAWING NUMBER	REV
F	5 6	A-GEN-277	0

APPENDIX XVIII

PLANT MISSION

The plant mission consists of the following:

A. Operate and maintain, as directed, active facilities in support of current operations. Maintain and/or layaway standby facilities, in accordance with command instruction, including any machinery and package lines received from industry or other government installations, in such conditions as will permit rehabilitation and resumption of production within the time limitations prescribed.

B. Perform receipt, surveillance, maintenance, renovation, demilitarization, salvage, storage, physical inventory and issue of field service stocks, items of industrial stocks as required or directed, and international logistics requirements.

C. Perform procurement, receipt, storage, and issue of necessary supplies, equipment, components, and essential materials.

D. Perform product assurance functions in support of procurement and production.

E. Perform production and process engineering as required/directed.

F. Provide support services for tenants as directed.

G. Load, assemble, and pack ammunition items.

H. Load, assemble, and pack ammunition items for customers.

APPENDIX XIX

SOPs for Emergency Evacuation

SOP MASTER INDEX

SOP #: **KN- 218** LINE: **1000**

FOR: **Emergency Evacuation Procedure and General Safety Requirements- 1000 Line**

This Standing Operating Procedure currently consist of the following Operations, latest change number and date to each listed below.

Opr.	Title	Chg.	Date
	Operational Index	4	8/26/13
A	Emergency Evacuation Procedure	7	8/26/13
B	General Safety Requirements	8	8/26/13

APPROVAL / PROCEDURE DATE _____

1000 AREA

EMERGENCY EVACUATION PROCEDURE

The intent of this procedure is for personnel to get away from danger in the safest and quickest manner possible.

A. Emergency Building Evacuation

1. If there is a fire or explosion, all personnel in the building will evacuate as follows:

   a. Evacuate through the nearest exit.

   b. Follow the service road or quickest route to the nearest active changehouse basement (Bldg. 1015).

   c. Widely bypass any other building which may be a hazard.

NOTE: Evacuation During Severely Cold Weather

2. In an emergency evacuate of a building during severely cold or rainy weather, the evacuating personnel may alter somewhat from their prescribed evacuation routes to take advantage of heated buildings or sheltered ramps as much as possible. Evacuating personnel should, at all times, avoid buildings sounding an emergency whistle, or any other apparently dangerous areas.

3. The choosing of evacuation routes from non-emergency buildings will also take into consideration the severity of the weather and the emergency at hand. The Building Supervisor will be responsible for personally guiding the evacuating personnel to the changehouse basement along the safest route.

4. The Building Supervisor will go to the nearest emergency phone located a safe distance from the emergency area and report the following:

   a. Nature of the emergency.

   b. Location (Building number) of the emergency.

5. * Building Supervisor will report to the Production Superintendent/ office, appropriate personnel:

   a. When building evacuation is complete.

   b. Nature of the emergency and building number evacuated.

B. Personnel Check In

The Supervisor or person in charge will:

1. Check in personnel at the guardhouse.

2. Make sure that everyone has evacuated safely.

3. Supply information to the Safety Department (ext 498, 423-2038), Production Superintendant/office, or appropriate personel on evacuation.

4. Also relay information to the Director of Operations as soon as any such information is available.

C. Equipment Deactivation and Explosives Security During Evacuation

1. When evacuating, the Building Supervisor will see that the master switches to all machinery and conveyors are "off."

2. All light switches are left on.

D. Explosives Security During Evacuation

1. * During evacuations of buildings, the person in charge will phone the Supervisor of other buildings. He will tell them the location and severity of the emergency and discuss the possible disposition of the explosives.

2. * It will be the responsibility of Supervision, to determine the method of disposition of the explosives.

2. * If danger is imminent, turn off all air controls/ electrical equipment. Leave the building.

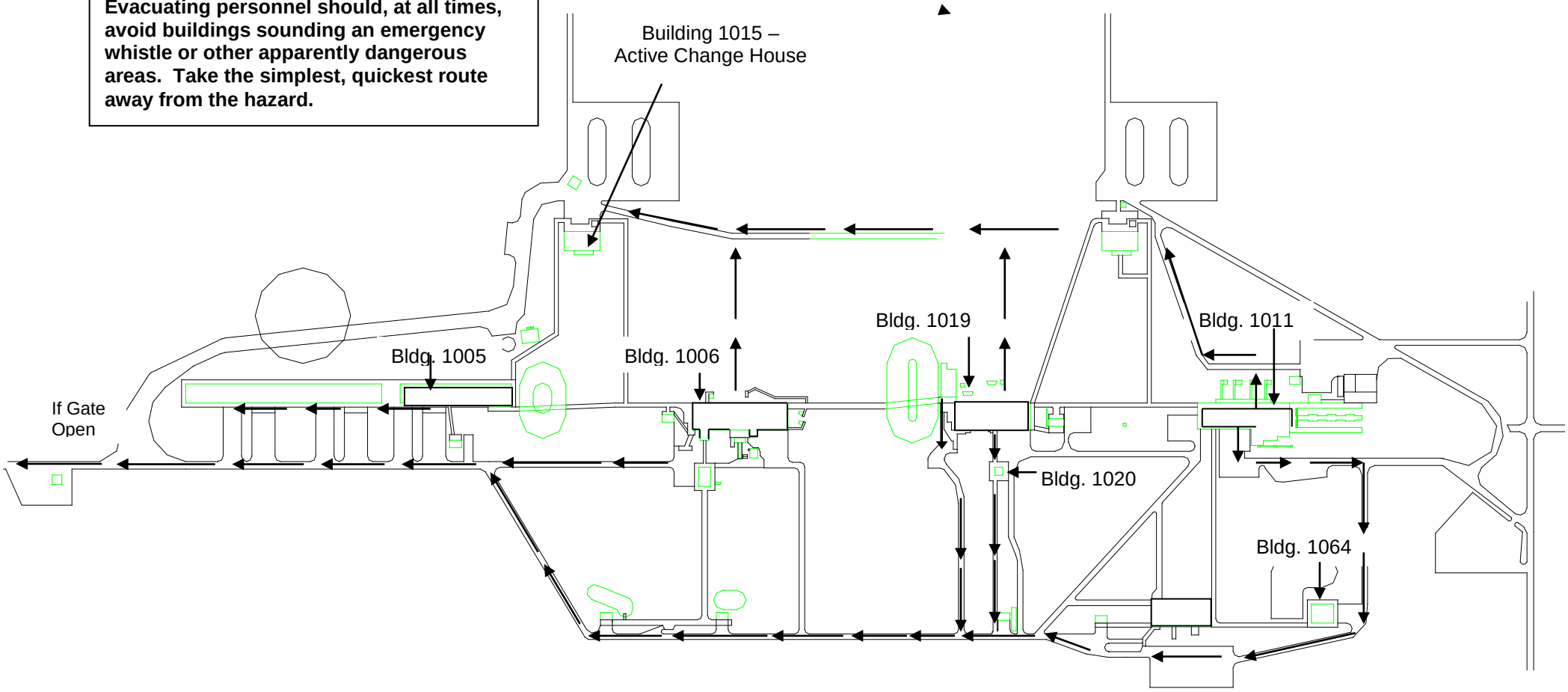
E. Evaluation of the Emergency

1. If the Production Superintendent feels there is no danger from the emergency, he may order the Building Supervisor of all the other buildings to continue operating, unless otherwise told.

3. * If any Building Supervisor sees evidence that danger may occur from the emergency, he will tell the Production Superintendent/office and evacuate all personnel from the building.

TYPICAL EMERGENCY EVACUATION PROCEDURE
1000 LINE

Evacuating personnel should, at all times, avoid buildings sounding an emergency whistle or other apparently dangerous areas. Take the simplest, quickest route away from the hazard.



APPROVAL / PROCEDURE DATE _____

1000 Area

GENERAL SAFETY REQUIREMENTS

Post in all areas and buildings where a Standing Operating Procedure (SOP), Work Instructions (WI), or Engineering Propram (EP) is required.

A. Personnel

1. Line supervision shall train personnel in evacuation procedures.

2. Schedule and conduct trial evacuations

3. Personnel will be furnished and will wear safety equipment as required.

4. Standing Operating Procedures shows the total number of operators and casuals allowed in a bay or building. Do not exceed this number when explosives are present.

5. Employees must not stand, lean, sit, crawl under or cross over conveyors. To cross over conveyors use the aid of a stile (crossover).

6. Report ALL INJURIES, ACCIDENTS, OR UNUSUAL EVENTS to supervision immediately.

7. Supervision will report ALL INJURIES, ACCIDENTS, OR UNUSUAL EVENTS to Safety immediately.

8. Obey rules governing sanitation and personal cleanliness.

9. All personnel will be trained in each operation that they are to perform.

10. Use only prescribed tools and equipment required in the performance of these operations.

11. There will be no horseplay of any kind by employees.

12. Operators are required to wear eye and/or hearing protection in areas that have signs posted indicating such requirements.

13. Street clothes will not be worn under powder uniform.

14. * Line personnel will read Standing Operating Procedures/Work Instructions:

APPROVAL / PROCEDURE DATE _____

1) When first assigned to an operation.

2) * When a revision or change is made to the SOP/Work Instructions.

3) When person has not performed the job in excess of 15 calendar days.

4) Annually.

15. * Line Supervision will conduct an annual walk-thru talk-thru review of the SOP/WI with operator assigned to the operation. This will involve an actual demonstration of the operation using the SOP/WI as a step by step guide.

16. Employees, including Supervisors, may be tested on the contents of an SOP/WI or Engineering Program after reading or annual walk-through review.

17. * All training, SOP/WI/EP reviews, and testing will be documented on a DZI 98 form. The trainer, Supervisor, and employee trained will sign the DZI 98. Completed DZI 98 will be placed in the individual's training documentation file.

18. Each month, hold Line safety meetings per rules set forth by the Safety Department.

19. When an electric storm approaches the installation:

a. Personnel working with explosive material, which could initiate from lightning will evacuate location (required at melter).

b. The supervisor in charge of the activity will be solely responsible for ordering the stoppage of operations.

c. The supervisor is responsible for evacuation of personnel.

20. When possible push carts/trailers. Do not pull carts/trailers.

21. The definition of "WARNING", "CAUTION" and "NOTE's" used in this Standing Operation/WI Procedure is as follows:

a. "WARNING" is used to state that possible injury or death could result if procedures are not followed.

APPROVAL / PROCEDURE DATE _____

b. "CAUTION" is used to state that possible damage to equipment could result if procedures are not followed.

c. "NOTE" is used to make special mention of a situation or condition and for information purposes.

22. Check conductive shoes and wrist stats daily, if required for proper grounding and record results on appropriate form. Conductive shoes should be checked periodically during the day to ensure dirt or dust on the soles hasn't reduced the conductive properties. Keep soles clean by wiping on mats or similar. Do Not wet bottom of conductive shoes to get shoe tester in green. Only company approved conductive insoles will be worn with conductive shoes.

23. * Supervisors are responsible for ensuring that employees are aware that Material Safety Data Sheet (MSDS) for each hazardous material in their respective production building is available by calling Industrial Safety & Training at ext. 495 or the Safety Department at ext. 498.

    Each building has a listing posted of all hazardous materials within the building. Supervisors will ensure this listing is current. If additional or different hazardous materials are introduced into the building, notify Industrial Hygiene or the Safety Department so an updated listing can be provided. A complete index of MSDS's for items on plant is available upon request. Supervisors are further responsible to ensure that employees are aware of the hazards and PPE associated with the hazardous materials they are working with.

24. * All personnel will yield right-of-way to personnel transporting powder/explosives.

25. When possible, use both hands when handling containers of explosives.

26. Each employee is responsible to insure they wear/use all the required personal protective equipment (PPE) and that PPE is in good repair, free of defects and properly fitted.

27. * Employees are required to wear eye protection and/or hearing protection in areas that have signs posted indicating such requirements. Double hearing protection is required for riser knock-out area of Bldg. 1006, Bay D.

28. Personnel handling ESD sensitive components must wear wrist straps, lab coats, and conductive shoes. Operations will be performed on conductive floors or mats.

29. Personnel involved in handling ESD sensitive components are required to annually attend ESD training as offered by the Safety Department.

Supervisors are responsible to ensure individuals under their supervision that require this training are current. ESD Training will be documented on DZI 98.

30. Supervisors are responsible to ensure all recognized hazards are identified and action taken to eliminate or mitigate the hazard.

31. Supervisors are responsible to insure that all their employees are fully trained and aware of the hazards associated with explosive operations prior to the employee being allowed to work live explosives.

32. Each supervisor is responsible to insure that employees have available to them all required PPE, that the PPE is not defective and employees properly wear and use PPE as required.

33. * Each supervisor is responsible to insure that containers of hazardous material are properly marked to insure users are aware of the hazards associated with the material. Usually hazardous materials are transferred from larger containers that are properly marked to smaller ones that are not. This requires that the new containers be labeled with the nomenclature and hazardous markings using NFPA labels. It is the supervisor's responsibility to insure this happens. Information can be obtained for the labels from the MSDS posted in each building or by calling Industrial Safety & Training, ext. 495 or Safety Dept. at ext. 498.

34. When roads are barricaded or blocked to facilitate explosive operations, employees are to observe the warning signs and/or flashing lights and not bypass these barricades or warnings.

35. All lexan shielding will be checked using an approved static meter at the start of each production run and weekly thereafter. An anti-static spray will be used to neutralize any static buildup.

36. Operators receiving materials by conveyor must learn the following:

    a. Location of the control switch/emergency cable.

    b. To stop conveyor when emergencies occur, station overloads, equipment failure, etc.

    c. To start and stop conveyor from the same station only.

    d. Do not start conveyor until the problem is corrected

37. Building supervisors will insure the correct “fire symbol” is posted.

38. All personnel involved in the melt-pour, facing, and clean up process must wear powder uniforms (street clothes will not be worn under powder uniforms) and spark proof safety shoes. Gloves may be worn as needed.

39. All personnel working directly with explosives will shower at the end of their work shift.

40. * Face shield and leather palm gloves are required when handling metal or wire banding.

41. HANTAVIRUS Hantavirus is a serious, often fatal, respiratory condition caused by a virus, which is spread by human contact with rodent feces and urine. It is believed that the *DEER MOUSE, WHITE-FOOTED MOUSE, RICE RAT, and COTTON RAT* are the most common carriers of the virus. Although all four species are found in Kansas, the risk of contracting HANTAVIRUS is extremely low. Precautions outlined here are essential due to the high mortality rate of the disease.

A. TO ENTER BLDG WHERE RODENT FECES AND URINE ARE NOT DISTURBED

1. No PPE (personal protective device) is normally required except a dust mask may be worn if so desired.
2. If unsure, call Industrial Hygiene or Safety Dept.

B. TO MOVE or HANDLE MATERIALS in BLDGS WHERE RODENT CONTAMINATION EXISTS

1. Where evidence of **light** rodent activity exists, areas where droppings or bedding is observed in isolated areas within the Bldg.
   a. Air out the Bldg prior to performing scope of work.
   b. Wear gloves, rubber or latex, when handling contaminated materials.
   c. Wear dust mask if so desired

2. Where evidence of **moderate** rodent activity exists, areas where droppings or bedding is observed in more than isolated areas within the Bldg., but not more than 50% of the surface area.

   a. Air out the Bldg prior to performing scope of work.
   b. Wear gloves, rubber or latex, when performing all tasks.
   c. Wear dust mask as a minimum.
   d. Avoid contact on clothing or skin with excreta or dusts.
   e. Spray contaminated materials with 10% bleach solution, thoroughly wetting.
   f. Never sweep or vacuum area, use wetted, 10% bleach solution, sponge or mop to clean up.
   g. Double bag clean-up and wetted PPE for disposal in land fill or place in dumpster.
   h. Decon PPE with 10% bleach solution prior to bagging , wash hands with soap and water.

APPROVAL / PROCEDURE DATE _____

NOTE: Do not dispose of half-face RESPIRATORS

3. Where evidence of **heavy** rodent activity exists, areas where droppings or bedding is observed in more than 50% of the areas within the Bldg.

    a. Air out Bldg. prior to performing scope of work.
    b. Wear gloves, rubber or latex, when performing all tasks.
    c. Wear half-face respirator with HEPA cartridges for clean-up.

CAUTION: Only properly fitted and trained employees, included in the DZI Respiratory Protection Program, may wear respirators

    d. Wear TYVEK coveralls.
    e. Avoid contact on clothing and skin with excreta.
    f. Spray contaminated materials with 10% bleach solution, thoroughly wetting.
    g. Never sweep or vacuum area, use wetted, 10% bleach solution, sponge or mop to clean up.
    h. Double bag clean-up and wetted PPE for disposal in land fill or place in dumpster.
    i. Decon PPE with 10% bleach solution prior to bagging, wash hands with soap and water.

NOTE: *Do not dispose of half-face RESPIRATORS*

C. TO CLEAN BUILDING or MATERIALS WHERE RODENT CONTAMINATION EXISTS

1. Air out Bldg. for several minutes.
2. Wear PPE as described above, depending on observation of activity.
3. Wet all contaminated materials with 10% bleach solution.
4. Avoid skin, clothing, and eye contact with materials.

D. GENERAL PRECAUTIONS

1. Prevention of Rodent Infestation - Recommended for inhabited or to be inhabited buildings:

    a. Clean area and maintain regularly.
    b. Seal holes and cracks around entrances to prevent rodent access.
    c. Set out and maintain rodenticide traps and bait traps.

2. Conditions to Avoid:

   a. Avoid feeding rodents by leaving scraps lying around.
   b. Do not disturb rodent droppings unless they have been disinfected with bleach solution.
   c. Avoid contact with rodents both at work and at home.

CAUTION:	Respirator fit test training through the hospital is required prior to wearing respirators.

B. <u>Area</u>

1. Keep the working area clean.

2. Report spillage of explosive material to supervision/ Line Safety immediately. Clean up per SOP KN-100.

3. Keep aisles/exits clear of obstruction that would prevent or hamper getting out in case of an emergency.

4. Do not store material on/or within 12 inches of the radiators.

5. Do not block area around fire fighting equipment.

6. Exit doors in explosive operating buildings shall be unlatched/unlocked during operating hours.

7. Transportation vehicles will not park within 100 feet of buildings unless loading or unloading.

8. At least once each shift remove all waste materials from work stations. Take material to control waste station.

9. * SOPs/WI show the total number of operators and casuals allowed in a bay or building. This number will not be exceeded.

10. * Emergency eyewash and shower units for an active work area shall be activated weekly to flush the line and to verify proper operation. Documentation of this weekly check will be recorded on a DZI 268, “Eye Wash & Shower Inspection” form. Place this form in a prominent spot near the eyewash equipment.
    Portable eye wash can not be flow tested. Insure that the liquid eye wash has not expired. Do not use expired eye wash.

APPROVAL / PROCEDURE DATE _____

C. Machinery

1. Ground all equipment.

2. * Test grounding systems on all equipment according to DOD 4145.26-M, OSHA requirements and the DZI Safety Standard on this subject (as applicable).

3. Only authorized maintenance personnel will perform machine maintenance.

4. Replace working shields removed for repairs or adjustments before resuming operation.

5. Before doing maintenance on an operating line, the area Safety Representative will make sure the area/equipment is decontaminated.

6. * Compressed air used for cleaning equipment/machinery will not exceed 30 PSI. Do not use compressed air to clean your skin or clothing.

7. * Inspect and maintain elevators per Preventive Maintenance schedule. Outside company will perform an annual inspection.

8. Weight test and properly label all overhead hoists annually.

9. All equipment will be locked out/tagged out prior to any maintenance.

10. * Maintenance will not be performed in buildings containing explosives without specific approval of the Safety Dept.

D. Material Handling Equipment

1. Do not store battery powered equipment in buildings containing ammunition or explosives.

2. Personnel will be furnished and will wear safety equipment as required.

3. * Remove defective equipment from the storage area. Take to appropriate battery shop or location.

4. When parked, forks should be in the lowest position or resting on the floor.

5. Type "EE" and "EX" rated battery powered equipment is the only type authorized for use.

6. Do not use battery powered equipment in areas where explosive dust may be present.

7. Do not leave battery powered equipment unattended in bays containing ammunition or explosives.

8. Disconnect battery power cable from forklift when stored in the battery shop.

9. Material handling equipment and lifting devices will contain current load test and date of next inspection.

10. Do not exceed forklift load rating.

11. Do not use equipment without a current inspection certification.

12. Forklift operators will be sure that forklift has a current load test/inspection due date. Seat belts will be worn if installed.

13. All forklift operators will have a valid operators license in their possession.

14. Operating requirements for jeeps, tow motors and forklift operators are:

    a. There must be a distance of three trucks lengths between trucks in operation.

    b. Do not permit lunch boxes, newspapers, extra clothing, tools, on trucks/tow motors or jeeps.

    c. Do not permit riders on trucks/tow motors or jeeps.

    d. Forklifts and tow tractors used outside after dark will have red reflectors on the rear. They will also have front and rear headlights.

    e. Do not make any repairs on equipment. Do not tamper with any mechanical devices.

    f. Report the need for repairs to the Supervisor.

    g. * Complete DZI 721 before operating material handling equipment.

    h. Sound horn when approaching ramp intersections, corners and entering buildings.

i. Do not pull more than three trailers at a time.

E. Product

1. Close and secure windows in unattended buildings containing loaded warheads, explosive parts or bulk explosives.
2. Close and secure windows during off shifts in buildings containing explosive parts or bulk explosives.
3. Post copies of SOPs, WI, EP in each area of operation.
4. No more than a half day supply of explosive or explosive filled material is allowed in operating buildings.
5. When producing inert warhead(s), projectiles, or simulations, they should be immediately identified as “INERT” with label or marker in block letters large enough to be clearly read.
6. Explosive Container(s) Handling:

   When explosive material is removed from boxes, shipping containers, crates, barrels, etc., all explosive markings will be obliterated, the container will be carefully inspected to insure all explosive items have been removed, and wiped down with a water-dampened cloth, as needed. An “EMPTY” label will be affixed to the side of the container.

   Cardboard cartons of bulk explosives will be hand wiped with a water-dampened cloth. Any explosive chunks or dust will be poured into the “scrap explosive” container, to remove any remaining powder and placed into an appropriate marked contaminated waste container. The boxes will be folded and put into stacks of 20. Each stack will be banded using ¾ inch banding material and marked as “EXPLOSIVE CONTAMINATED MATERIAL”. Stacks may be less tan 20 boxes if it is the end of the project or if there will be a break of more than four workdays. Contact Production Control for removal of boxes.

   “Ice cream” containers and similar containers from which power has been emptied may be place in a larger box or contaminated waste bag. Lids shall be removed, and the interior inspected to insure it is free of explosive material. The lid will not be placed back on the container but may be put inside it. The lid and container can then be put into the larger box or bag. The larger box or bag shall be clearly labeled “EXPLOSIVE CONTAMINATED MATERIAL”.

   Explosive contaminated floor sweepings and similar contaminated material that is generated following cleanup after an explosive will be placed in the appropriately marked contaminated waste container. Contact Production Control for removal.

7. Whenever the explosive status for a production line, building, or storage area changes from inert to explosive (or changes from explosive to inert), the Production Superintendent (or designee), Engineer, or responsible party for the operation will immediately notify Security Dept. Dispatcher at X521, 778-1720, and 1000 Line Guard Gate at X342, of the change in status.

8. If a projectile or warhead (empty or loaded) is dropped or spilled, the operator will immediately notify Supervision who will notify Safety. If there is not a safety concern, the item will be segregate from normal production & the item will be properly identified. Proper notification will be provided to appropriate personnel.

* If the item contains explosives, Safety (Ext. 498) will be notified immediately before moving the item unless it will cause more of a hazard.

Prior to re-release of the part for use in production, the part will be inspected for visual defects, and if the item is explosive loaded it may be x-rayed for charge damage. If no defects are found, the QC Inspector, with QC Supervision, Production Supervision, Production Control representative approval, may return the item to production for further processing. If defects are found, the part will be properly identified, tagged and processed for disposition.

9. Production areas will have identified “Non-conforming Material Hold Area” available to support control of known or suspect non-conforming material in efficient and timely manner.

10. General Workmanship - After the completion of a process or operation, the workmanship, appearance and functionality of such will be as described in the written and verbal instructions, and according to normal, satisfactory, “common sense” workmanship criteria. Examples are: torqueing with no cross threading & heads flush to the surface, painting without runs, absence of rust, no scratches or dents in products, etc.

Instances where the workmanship, quality of the product is questioned, whether it occurred during handling by DZI personnel or outside sources, will be brought to the attention of Supervision and/or QC.

F. Flammable Liquids

1. Store flammable and combustible liquids in approved location and cabinets.

2. When dispensing flammable liquid, ground the storage container and empty container.

3. Spigots used for dispensing must be self-closing type. Use ONLY approved dispensing pumps.

4. Do not dispense flammable liquids in operating buildings.

5. Place acetone soaked rags in approved containers identified with a Hazardous Waste label.

6. Waste ink, paint, thinner, alcohol, grease, lubricants, acetone, adhesive and rejected explosive components will be placed in approved containers and labeled with a complete Hazardous Waste label.

7. Containers other than their original containers used to store Hazardous materials will be identified with an NFPA hazardous class label.

G. Truck, Trailer or Motor Carrier Loading or Unloading

1. Inspect dock plates before use.

2. During loading and unloading of motor vehicles, the brakes must be set. In addition, a chock must be placed on both sides (front and back) of at least one wheel.

3. Display explosive placards on carriers until loading and unloading is completed.

4. If no guide is available, the driver will:

   a. Dismount and physically circle the vehicle.

   b. Visually check the backing area for adequate clearance.

5. All occupants of motor carriers must wear installed seat belts.

6. Driver's and occupants of Government and company owned vehicles are required to wear installed seat belts. Air bags on the passenger side of new pickups/vehicles are not to be turned off or disabled. Supervisors are responsible to ensure compliance.

H. Spills (Explosive)

1. Report any spillage of explosives to the Supervisor immediately.

2. Clean up explosive spills per SOP KN-100.

3. Post approved SOP for explosive spills in area of operation.

I. Hazardous Material Spills:

A. Working Quantities (containers used at individual work stations):

1. Contain area of spill by placing absorbent material completely around spilled material.

2. Soak up spilled material with absorbent material.

3. After all hazardous material has been soaked up, place absorbent materials in a container identified with a hazardous waste label.

4. Transfer container to the hazardous waste storage area.

B. Quantities greater than working quantities spilled inside a building:

1. Contain area of spill by placing absorbent material completely around spilled material.

2. * Notify the supervisor.

C. Outside Spill to the Environment:

1. Report any outside spill to the environment of ink, paint, thinner, alcohol, grease, lubricants, acetone adhesive and wastewater to Guard Department, Ext. 521 or 620-778-1720.

J. Hazardous Waste General Handling Procedures & Safety Precautions

1. Hazardous wastes are wastes that may pose a threat to human health and/or the environment. Refer to SOP KN-199 for handling procedures and precautions when handling hazardous waste.

K. Gage, Measuring and Testing Device

1. Any gage, measuring or testing device that is dropped, mishandled, or suspected of being inaccurate through visual inspection or erratic or unsatisfactory performance, shall not be used. Immediately identify suspect gages, measuring or testing devices with a card or tape with words "Do Not Use - Suspect" or "Do Not Use - Dropped" to prevent usage. Notify the Supervisor and QC Inspector for calibration.

APPROVAL / PROCEDURE DATE _____

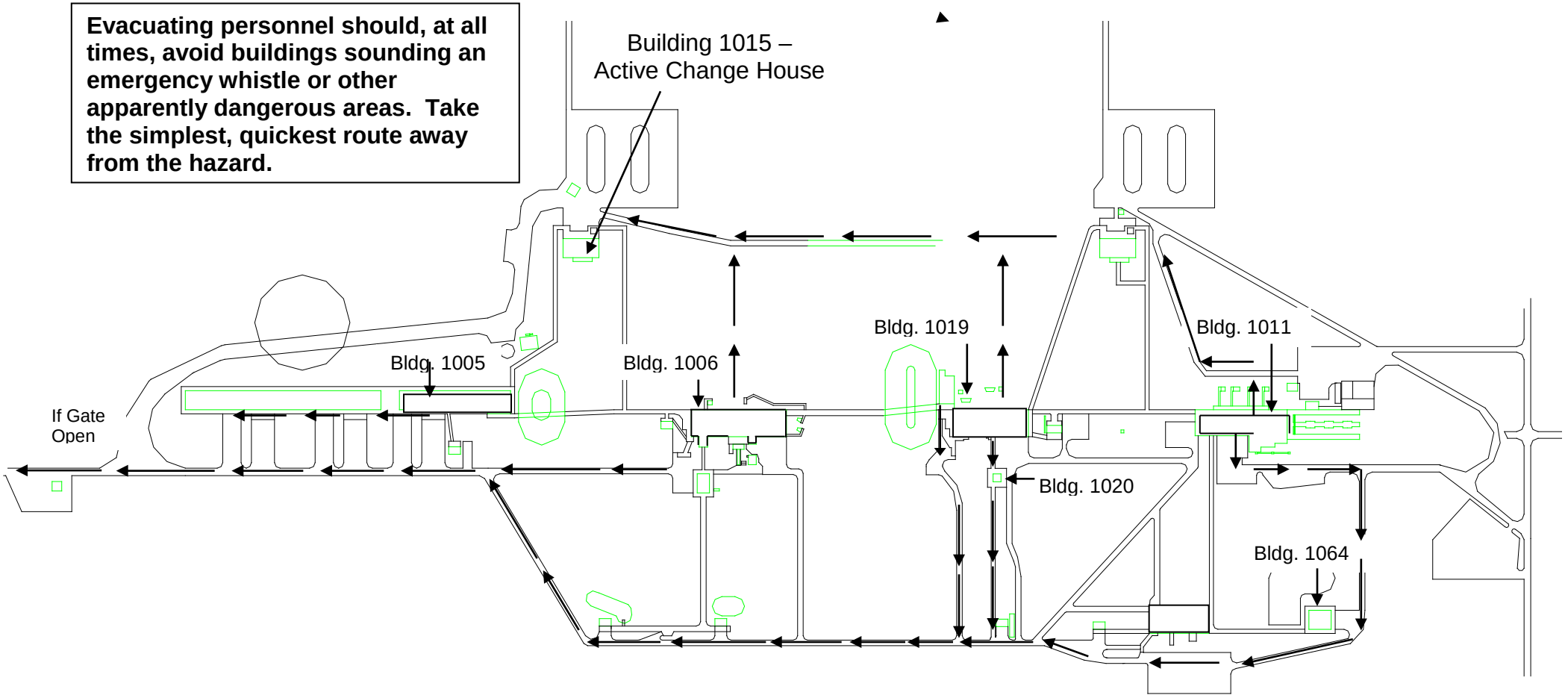
2. Operators shall verify, prior to use, that gages, measuring & testing equipment/tools have passed a current calibration certification. This will be verified through a calibration decal/label or certification card which references the gage/tool number, current certification date & next due date. Equipment/tooling, instruments, or gages used with visual settings (either numerical or indicator type) will be checked prior to use to verify that settings are correct as indicated in the specific SOP or WI, or EP. Immediately notify Supervision & QC Inspector if above items not certified or set correctly.

* Denotes Change(s)

APPROVAL / PROCEDURE DATE _____

TYPICAL
EMERGENCY EVACUATION PROCEDURE
1000 LINE

Evacuating personnel should, at all times, avoid buildings sounding an emergency whistle or other apparently dangerous areas. Take the simplest, quickest route away from the hazard.



APPROVAL / PROCEDURE DATE _____

1000 Area

GENERAL SAFETY REQUIREMENTS

Post in all areas and buildings where a Standing Operating Procedure is required.

A. Personnel

1. Line supervision shall train personnel in evacuation procedures.

2. Schedule and conduct trial evacuations

3. Personnel will be furnished and will wear safety equipment as required.

4. Standing Operating Procedures shows the total number of operators and casuals allowed in a bay or building. Do not exceed this number when explosives are present.

5. Employees must not stand, lean, sit, crawl under or cross over conveyors. To cross over conveyors use the aid of a stile (crossover).

6. Report ALL INJURIES, ACCIDENTS, OR UNUSUAL EVENTS to supervision immediately.

7. Supervision will report ALL INJURIES, ACCIDENTS, OR UNUSUAL EVENTS to Safety immediately.

8. Obey rules governing sanitation and personal cleanliness.

9. All personnel will be trained in each operation that they are to perform.

10. Use only prescribed tools and equipment required in the performance of these operations.

11. There will be no horseplay of any kind by employees.

12. Operators are required to wear eye and/or hearing protection in areas that have signs posted indicating such requirements.

13. Street clothes will not be worn under powder uniform.

14. Line personnel will read Standing Operating Procedures:

APPROVAL / PROCEDURE DATE _____

1) When first assigned to an operation.

2) When a revision or change is made to the SOP.

3) When person has not performed the job in excess of 15 calendar days.

4) Annually.

5) As required by the General Quality Program Plan.

15. Line Supervision will conduct an annual walk-thru talk-thru review of the SOP with operator assigned to the operation. This will involve an actual demonstration of the operation using the SOP as a step by step guide.

16. Employees, including Supervisors, may be tested on the contents of an SOP or Engineering Program after reading or annual walk-through review.

17. All training, SOP/EP reviews, and testing will be documented on a KAAP 98 form. The trainer, Supervisor, and employee trained will sign the KAAP 98. Completed KAAP 98 will be placed in the individual's training documentation file.

18. Each month, hold Line safety meetings per rules set forth by the Safety Department.

19. When an electric storm approaches the installation:

    a. Personnel working with explosive material, which could initiate from lightning will evacuate location.

    b. The supervisor in charge of the activity will be solely responsible for ordering the stoppage of operations.

    c. The supervisor is responsible for evacuation of personnel.

20. When possible push carts/trailers. Do not pull carts/trailers.

21. The definition of "WARNING", "CAUTION" and "NOTE's" used in this Standing Operation Procedure is as follows:

    a. "WARNING" is used to state that possible injury or death could result if procedures are not followed.

b. "CAUTION" is used to state that possible damage to equipment could result if procedures are not followed.

c. "NOTE" is used to make special mention of a situation or condition and for information purposes.

22. Check conductive shoes and wrist stats daily, if required for proper grounding and record results on KAAP 244. Conductive shoes should be checked periodically during the day to ensure dirt or dust on the soles hasn't reduced the conductive properties. Keep soles clean by wiping on mats or similar. Do Not wet bottom of conductive shoes to get shoe tester in green. Only company approved conductive insoles will be worn with conductive shoes.

23. Supervisors are responsible for ensuring that employees are aware that Material Safety Data Sheet (MSDS) for each hazardous material in their respective production building is available by calling Industrial Hygiene at Ext. 528 or the Safety Department at Ext. 496.

    Each building has a listing posted of all hazardous materials within the building. Supervisors will ensure this listing is current. If additional or different hazardous materials are introduced into the building, notify Industrial Hygiene or the Safety Department so an updated listing can be provided. A complete index of MSDS's for items on plant is available upon request. Supervisors are further responsible to ensure that employees are aware of the hazards and PPE associated with the hazardous materials they are working with.

24. All personnel will yield right-of-way to powder buggies or personnel transporting powder.

25. When possible, use both hands when handling containers of explosives.

26. Each employee is responsible to insure they wear/use all the required personal protective equipment (PPE) and that PPE is in good repair, free of defects and properly fitted.

27. Personnel handling ESD sensitive components must wear wrist straps, lab coats, and conductive shoes. Operations will be performed on conductive floors or mats.

28. Personnel involved in handling ESD sensitive components are required to annually attend ESD training as offered by the Safety Department.

Supervisors are responsible to ensure individuals under their supervision that require this training are current. ESD Training will be documented on DZI 98.

29. Supervisors are responsible to ensure all recognized hazards are identified and action taken to eliminate or mitigate the hazard.

30. Supervisors are responsible to insure that all their employees are fully trained and aware of the hazards associated with explosive operations prior to the employee being allowed to work live explosives.

31. Each supervisor is responsible to insure that employees have available to them all required PPE, that the PPE is not defective and employees properly wear and use PPE as required.

32. Each supervisor is responsible to insure that containers of hazardous material are properly marked to insure users are aware of the hazards associated with the material. Usually hazardous materials are transferred from larger containers that are properly marked to smaller ones that are not. This requires that the new containers be labeled with the nomenclature and hazardous markings using NFPA labels. It is the supervisor's responsibility to insure this happens. Information can be obtained for the labels from the MSDS posted in each building or by calling Industrial Hygiene, ext. 445 or Safety Dept. at ext. 496.

33. When roads are barricaded or blocked to facilitate explosive operations, employees are to observe the warning signs and/or flashing lights and not bypass these barricades or warnings.

34. All lexan shielding will be checked using an approved static meter at the start of each production run and weekly thereafter. An anti-static spray will be used to neutralize any static buildup.

35. Operators receiving materials by conveyor must learn the following:

    a. Location of the control switch/emergency cable.

    b. To stop conveyor when emergencies occur, station overloads, equipment failure, etc.

    c. To start and stop conveyor from the same station only.

    d. Do not start conveyor until the problem is corrected.

36. Building supervisors will insure the correct “fire symbol” is posted.

37. All personnel involved in the melt-pour, facing, and clean up process must wear powder uniforms (street clothes will not be worn under powder uniforms) and spark proof safety shoes. Gloves may be worn as needed.

38. All personnel working directly with explosives will shower at the end of their work shift.

39. **HANTAVIRUS** Hantavirus is a serious, often fatal, respiratory condition caused by a virus, which is spread by human contact with rodent feces and urine. It is believed that the *DEER MOUSE, WHITE-FOOTED MOUSE, RICE RAT, and COTTON RAT* are the most common carriers of the virus. Although all four species are found in Kansas, the risk of contracting HANTAVIRUS is extremely low. Precautions outlined here are essential due to the high mortality rate of the disease.

A. TO ENTER BLDG WHERE RODENT FECES AND URINE ARE NOT DISTURBED

1. No PPE (personal protective device) is normally required except a dust mask may be worn if so desired.
2. If unsure, call Industrial Hygiene or Safety Dept.

B. TO MOVE or HANDLE MATERIALS in BLDGS WHERE RODENT CONTAMINATION EXISTS

1. Where evidence of **light** rodent activity exists, areas where droppings or bedding is observed in isolated areas within the Bldg.
   a. Air out the Bldg prior to performing scope of work.
   b. Wear gloves, rubber or latex, when handling contaminated materials.
   c. Wear dust mask if so desired

2. Where evidence of **moderate** rodent activity exists, areas where droppings or bedding is observed in more than isolated areas within the Bldg., but not more than 50% of the surface area.

   a. Air out the Bldg prior to performing scope of work.
   b. Wear gloves, rubber or latex, when performing all tasks.
   c. Wear dust mask as a minimum.
   d. Avoid contact on clothing or skin with excreta or dusts.
   e. Spray contaminated materials with 10% bleach solution, thoroughly wetting.
   f. Never sweep or vacuum area, use wetted, 10% bleach solution,

sponge or mop to clean up.
g. Double bag clean-up and wetted PPE for disposal in land fill or place in dumpster.
h. Decon PPE with 10% bleach solution prior to bagging , wash hands with soap and water.

NOTE: Do not dispose of half-face RESPIRATORS

3. Where evidence of **heavy** rodent activity exists, areas where droppings or bedding is observed in more than 50% of the areas within the Bldg.

a. Air out Bldg. prior to performing scope of work.
b. Wear gloves, rubber or latex, when performing all tasks.
c. Wear half-face respirator with HEPA cartridges for clean-up.

CAUTION: Only properly fitted and trained employees, included in the DZI Respiratory Protection Program, may wear respirators

d. Wear TYVEK coveralls.
e. Avoid contact on clothing and skin with excreta.
f. Spray contaminated materials with 10% bleach solution, thoroughly wetting.
g. Never sweep or vacuum area, use wetted, 10% bleach solution, sponge or mop to clean up.
h. Double bag clean-up and wetted PPE for disposal in land fill or place in dumpster.
i. Decon PPE with 10% bleach solution prior to bagging, wash hands with soap and water.

NOTE: *Do not dispose of half-face RESPIRATORS*

C. TO CLEAN BUILDING or MATERIALS WHERE RODENT CONTAMINATION EXISTS

1. Air out Bldg. for several minutes.
2. Wear PPE as described above, depending on observation of activity.
3. Wet all contaminated materials with 10% bleach solution.
4. Avoid skin, clothing, and eye contact with materials.

D. GENERAL PRECAUTIONS

APPROVAL / PROCEDURE DATE _____

1. Prevention of Rodent Infestation - Recommended for inhabited or to be inhabited buildings:

   a. Clean area and maintain regularly.
   b. Seal holes and cracks around entrances to prevent rodent access.
   c. Set out and maintain rodenticide traps and bait traps.

CAUTION: Preventative measures must be performed by VECTOR CONTROL OFFICER

2. Conditions to Avoid:

   a. Avoid feeding rodents by leaving scraps lying around.
   b. Do not disturb rodent droppings unless they have been disinfected with bleach solution.
   c. Avoid contact with rodents both at work and at home.

CAUTION:	Respirator fit test training through the hospital is required prior to wearing respirators.

B. Area

1. Keep the working area clean.

2. Report spillage of explosive material to supervision/ Line Safety immediately. Clean up per SOP KN-100.

3. Keep aisles/exits clear of obstruction that would prevent or hamper getting out in case of an emergency.

4. Do not store material on/or within 12 inches of the radiators.

5. Do not block area around fire fighting equipment.

6. Exit doors in explosive operating buildings shall be unlatched/unlocked during operating hours.

7. Transportation vehicles will not park within 25 feet of buildings.

8. At least once each shift remove all waste materials from work stations. Take material to control waste station.

APPROVAL / PROCEDURE DATE _____

9. SOPs show the total number of operators and casuals allowed in a bay or building. This number will not be exceeded.

10. Emergency eyewash and shower units for an active work area shall be activated weekly to flush the line and to verify proper operation. Documentation of this weekly check will be recorded on a KAAP 268, "Eye Wash & Shower Inspection" form. Place this form in a prominent spot near the eyewash equipment.

C. Machinery

1. Ground all equipment.

2. Test grounding systems on all equipment according to DOD 4145.26-M and the DZI Safety Standard on this subject.

3. Only authorized maintenance personnel will perform machine maintenance.

4. Replace working shields removed for repairs or adjustments before resuming operation.

5. Before doing maintenance on an operating line, the area Safety Representative will make sure the area/equipment is decontaminated.

6. Compressed air used for cleaning equipment/machinery will not exceed 30 PSI.

7. Inspect and maintain elevators per Preventive Maintenance schedule.

8. Weight test and properly label all overhead hoists annually.

9. All equipment will be locked out/tagged out prior to any maintenance.

D. Material Handling Equipment

1. Do not store battery powered equipment in buildings containing ammunition or explosives.

2. Personnel will be furnished and will wear safety equipment as required.

3. Remove defective equipment from the storage area. Take to battery shop or Bldg. 202.

4. When parked, forks should be in the lowest position or resting on the floor.

5. Type "EE" and "EX" rated battery powered equipment is the only type authorized for use.

6. Do not use battery powered equipment in areas where explosive dust may be present.

7. Do not leave battery powered equipment unattended in bays containing ammunition or explosives.

8. Disconnect battery power cable from forklift when stored in the battery shop.

9. Material handling equipment and lifting devices will contain current load test and date of next inspection.

10. Do not exceed forklift load rating.

11. Do not use equipment without a current inspection certification.

12. Forklift operators will be sure that forklift has a current load test/inspection due date. Seat belts will be worn if installed.

13. All forklift operators will have a valid operators license in their possession.

14. Operating requirements for jeeps, tow motors and forklift operators are:

    a. There must be a distance of three trucks lengths between trucks in operation.

    b. Do not permit lunch boxes, newspapers, extra clothing, tools, on trucks/tow motors or jeeps.

    c. Do not permit riders on trucks/tow motors or jeeps.

    d. Forklifts and tow tractors used outside after dark will have red reflectors on the rear. They will also have front and rear headlights.

    e. Do not make any repairs on equipment. Do not tamper with any mechanical devices.

    f. Report the need for repairs to the Foreman.

g. Complete KAAP 721A before operating material handling equipment.

h. Sound horn when approaching ramp intersections, corners and entering buildings.

i. Do not pull more than three trailers at a time.

E. Product

1. Close and secure windows in unattended buildings containing loaded warheads, explosive parts or bulk explosives.
2. Close and secure windows during off shifts in buildings containing explosive parts or bulk explosives.
3. Post copies of SOP in each area of operation.
4. No more than a half day supply of explosive or explosive filled material is allowed in operating buildings.
5. When producing inert warhead(s), projectiles, or simulations, they should be immediately identified as “INERT” with label or marker in block letters large enough to be clearly read.
6. Explosive Container(s) Handling:

   When explosive material is removed from boxes, shipping containers, crates, barrels, etc., all explosive markings will be obliterated, the container will be carefully inspected to insure all explosive items have been removed, and wiped down with a water-dampened cloth, as needed. An “EMPTY” label will be affixed to the side of the container.

   Cardboard cartons of bulk explosives will be hand wiped with a water-dampened cloth. Any explosive chunks or dust will be poured into the “scrap explosive” container, to remove any remaining powder and placed into an appropriate marked contaminated waste container. The boxes will be folded and put into stacks of 20. Each stack will be banded using ¾ inch banding material and marked as “EXPLOSIVE CONTAMINATED MATERIAL”. Stacks may be less tan 20 boxes if it is the end of the project or if there will be a break of more than four workdays. Contact Production Control for removal of boxes.

   “Ice cream” containers and similar containers from which power has been emptied may be place in a larger box or contaminated waste bag. Lids shall be removed, and the interior inspected to insure it is free of explosive material. The lid will not be placed back on the container but may be put inside it. The lid and container can then be put into the larger box or bag.

The larger box or bag shall be clearly labeled “EXPLOSIVE CONTAMINATED MATERIAL”.

Explosive contaminated floor sweepings and similar contaminated material that is generated following cleanup after an explosive will be placed in the appropriately marked contaminated waste container. Contact Production Control for removal.

7. Whenever the explosive status for a production line, building, or storage area changes from inert to explosive (or changes from explosive to inert), the Line Superintendent (or designee), Engineer, or responsible party for the operation will immediately notify the Security Dept. Dispatcher at X521 of the change in status.

8. If a projectile or warhead (empty or loaded) is dropped or spilled, the operator will immediately notify Supervision who will notify Safety. If there is not a safety concern, the item will be segregate from normal production & the item will be properly identified. Proper notification will be provided to the QC Inspector, Production Control, etc.

   Prior to re-release of the part for use in production, the part will be inspected for visual defects, and if the item is explosive loaded it may be x-rayed for charge damage. If no defects are found, the QC Inspector, with QC Supervision, Production Supervision, Production Control representative approval, may return the item to production for further processing. If defects are found, the part will be properly identified, tagged and processed for disposition.

9. Production areas will have identified “Non-conforming Material Hold Area” available to support control of known or suspect non-conforming material in efficient and timely manner.

10. * General Workmanship - After the completion of a process or operation, the workmanship, appearance and functionality of such will be as described in the written and verbal instructions, and according to normal, satisfactory, “common sense” workmanship criteria. Examples are: torqueing with no cross threading & heads flush to the surface, painting without runs, absence of rust, no scratches or dents in products, etc.

    Instances where the workmanship, quality of the product is questioned, whether it occurred during handling by DZI personnel or outside sources, will be brought to the attention of Supervision and/or QC.

F. Flammable Liquids

1. Store flammable and combustible liquids in approved location and cabinets.

2. When dispensing flammable liquid, ground the storage container and empty container.

3. Spigots used for dispensing must be self-closing type. Use ONLY approved dispensing pumps.

4. Do not dispense flammable liquids in operating buildings.

5. Place acetone soaked rags in approved containers identified with a Hazardous Waste label.

6. All non-explosive hazardous waste must have the label checked by the Hazardous Waste Management Team (Ext. 532) before DTI from the Line.

7. Waste ink, paint, thinner, alcohol, grease, lubricants, acetone, adhesive and rejected explosive components will be placed in approved containers and labeled with a complete Hazardous Waste label.

8. Containers other than their original containers used to store Hazardous materials will be identified with an NFPA hazardous class label.

G. Truck, Trailer or Motor Carrier Loading or Unloading

1. Inspect dock plates before use.

2. During loading and unloading of motor vehicles, the brakes must be set. In addition, a chock must be placed on both sides (front and back) of at least one wheel.

3. Display explosive placards on carriers until loading and unloading is completed.

4. If no guide is available, the driver will:

   a. Dismount and physically circle the vehicle.

   b. Visually check the backing area for adequate clearance.

5. All occupants of motor carriers must wear installed seat belts.

6. Driver's and occupants of Government and company owned vehicles are required to wear installed seat belts. Air bags on the passenger side of new pickups/vehicles are not to be turned off or disabled. Supervisors are responsible to ensure compliance.

H. Spills (Explosive)

1. Report any spillage of explosives.

2. Clean up explosive spills per SOP KN-100.

3. Post approved SOP for explosive spills in area of operation.

I. Hazardous Material Spills:

A. Working Quantities (containers used at individual work stations):

1. Contain area of spill by placing absorbent material completely around spilled material.

2. Soak up spilled material with absorbent material.

3. After all hazardous material has been soaked up, place absorbent materials in a container identified with a hazardous waste label.

4. Transfer container to the hazardous waste storage area.

B. Quantities greater than working quantities spilled inside a building:

1. Contain area of spill by placing absorbent material completely around spilled material.

2. Notify the supervisor or bayleader and Manager of Maintenance Services.

C. Outside Spill to the Environment:

1. Report any outside spill to the environment of ink, paint, thinner, alcohol, grease, lubricants, acetone adhesive and wastewater to Guard Department, Ext. 521.

J. Hazardous Waste General Handling Procedures & Safety Precautions

1. Hazardous wastes are wastes that may pose a threat to human health and/or the environment. Refer to SOP KN-199 for handling procedures and precautions when handling hazardous waste.

APPROVAL / PROCEDURE DATE _____

K. Gage, Measuring and Testing Device

1. * Any gage, measuring or testing device that is dropped, mishandled, or suspected of being inaccurate through visual inspection or erratic or unsatisfactory performance, shall not be used. Immediately identify suspect gages, measuring or testing devices with a card or tape with words "Do Not Use - Suspect" or "Do Not Use - Dropped" to prevent usage. Notify the Supervisor and QC Inspector for calibration.

2. * Operators shall verify, prior to use, that gages, measuring & testing equipment/tools have passed a current calibration certification. This will be verified through a calibration decal/label or certification card which references the gage/tool number, current certification date & next due date. Equipment/tooling, instruments, or gages used with visual settings (either numerical or indicator type) will be checked prior to use to verify that settings are correct as indicated in the specific SOP or WI, or EP. Immediately notify Supervision & QC Inspector if above items not certified or set correctly.

* Denotes Change(s)

APPROVAL / PROCEDURE DATE _____

SOP MASTER INDEX

SOP #: KN-205 **LINE:** 1100

FOR: 1100 Line Emergency Evacuation Procedure and General Safety Requirements

This Standing Operating Procedure currently consist of the following Operations, latest change number and date to each listed below.

Opr.	Title	Chg.	Date
	Operational Index	Delete	
A	Emergency Evacuation Procedure	2	7/29/99
B	General Safety Requirements	8	5/7/08

APPROVAL / PROCEDURE DATE _____

EMERGENCY EVACUATION PROCEDURE

1100 AREA

The intent of this procedure is for personnel to get away from danger in the safest and quickest manner possible.

A. Emergency Building Evacuation

1. If there is a fire or explosion, all personnel in the building will evacuate as follows:

   a. Evacuate through the nearest exit.

   b. Follow the service road or quickest route to the nearest active changehouse basement.

   c. Widely bypass any other building which may be a hazard.

NOTE: Evacuation During Severely Cold Weather

2. In an emergency evacuate of a building during severely cold weather, the evacuating personnel may alter somewhat from their prescribed evacuation routes to take advantage of heated buildings or sheltered ramps as much as possible. Evacuating personnel should, at all times, avoid buildings sounding an emergency whistle, or any other apparently dangerous areas.

3. The choosing of evacuation routes from non-emergency buildings will also take into consideration the severity of the weather and the emergency at hand. The building Supervisor will be responsible for personally guiding the evacuating personnel to the change house basement along the safest route.

4. The building Supervisor will go to the nearest emergency phone located a safe distance from the emergency area and report the following:

   a. Nature of the emergency.

   b. Location (Building number) of the emergency.

APPROVAL / PROCEDURE DATE _____

5. * Building Supervisor will report to the Production Superintendent/office, appropriate personnel:

   a. When building evacuation is complete.

   b. Nature of the emergency and building number evacuated.

B. Personnel Check In

The Supervisor or person in charge will:

1. Check in personnel at the guardhouse.

2. Make sure that everyone has evacuated safely.

3. * Supply information to the Safety Department (ext. 498, 423-2038), Production Superindentant/office or appropriate personnel on evacuation.

4. Also relay information to the Director of Operations as soon as any such information is available.

C. Equipment Deactivation and Explosives Security During Evacuation

1. When evacuating, the Building Supervisor will see that the master switches to all machinery and conveyors are "off."

2. All light switches are left on.

D. Explosives Security During Evacuation

1. * During evacuations of buildings, the person in charge will phone the Supervisor of other buildings. He will tell them the location and severity of the emergency and discuss the possible disposition of the explosives.

2. It will be the responsibility of Supervision, to determine the method of disposition of the explosives.

3. If danger is imminent, turn off all air controls/ electrical equipment. Leave the building.

APPROVAL / PROCEDURE DATE _____

E. Evaluation of the Emergency

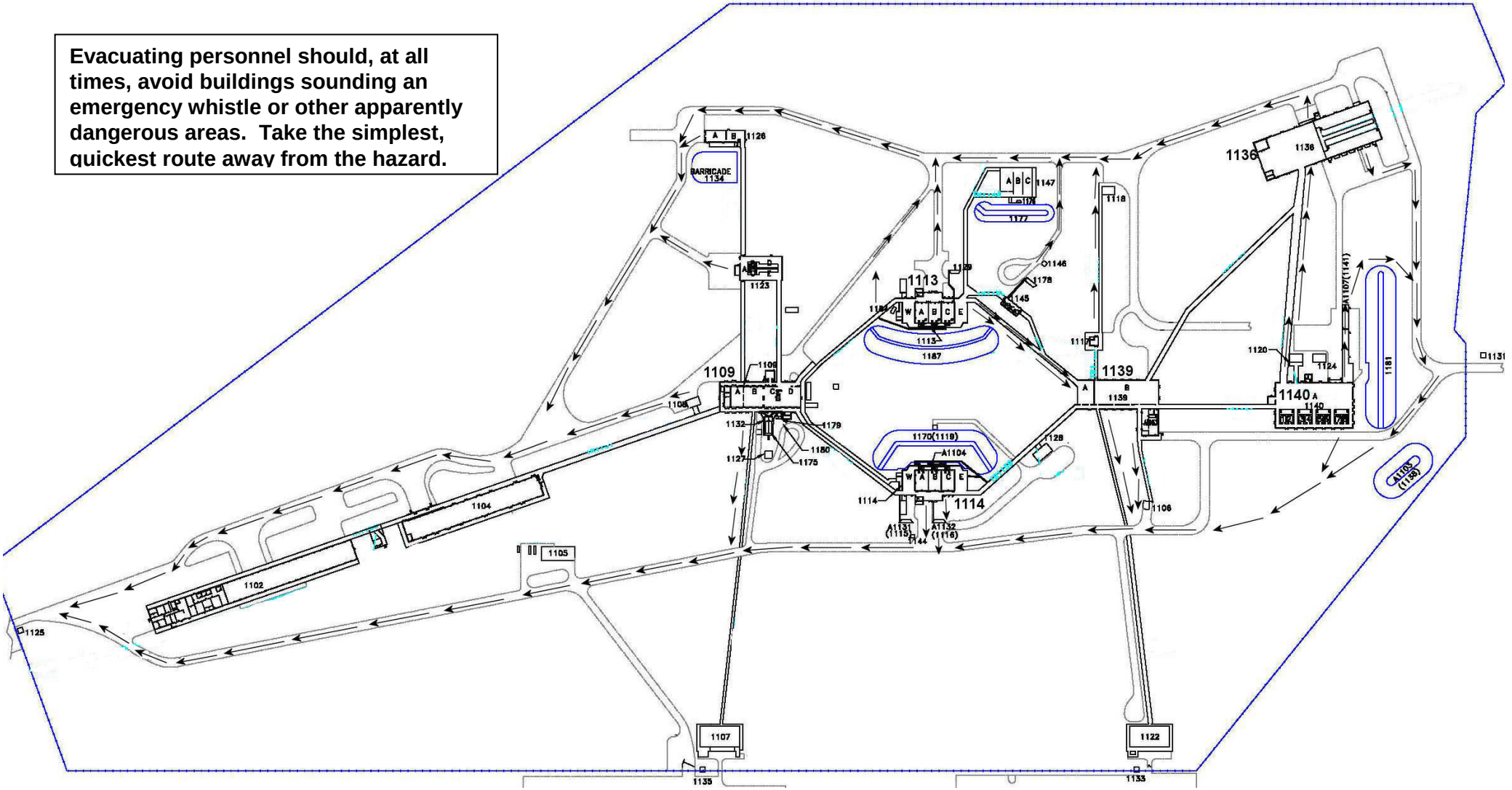
1.* If the Production Superintendent/person in charge feels there is no danger from the emergency, he may order the Building Supervisor of all the other buildings to continue operating, unless otherwise told.

2.* If any Building Supervisor sees evidence that danger may occur from the emergency, he will tell the Production Superintendent/office, appropriate personnel, and evacuate all personnel from the building.

* Denotes Change(s)

APPROVAL / PROCEDURE DATE _____

Evacuating personnel should, at all times, avoid buildings sounding an emergency whistle or other apparently dangerous areas. Take the simplest, quickest route away from the hazard.



APPROVAL / PROCEDURE DATE _____

GENERAL SAFETY REQUIREMENTS

1100 Area

Post in all areas and buildings where a Standing Operating Procedure (SOP), Work Instruction (WI), or Engineering Program (EP) is required.

A. Personnel

1. Line supervision shall train personnel in evacuation procedures.

2. Schedule and conduct trial evacuations

3. Personnel will be furnished and will wear safety equipment as required.

4. Standing Operating Procedures shows the total number of operators and casuals allowed in a bay or building. Do not exceed this number when explosives are present.

5. Employees must not stand, lean, sit, crawl under or cross over conveyors. To cross over conveyors use the aid of a stile (crossover).

6. Report ALL INJURIES, ACCIDENTS, OR UNUSUAL EVENTS to supervision immediately.

7. Supervision will report ALL INJURIES, ACCIDENTS, OR UNUSUAL EVENTS to Safety immediately.

8. Obey rules governing sanitation and personal cleanliness.

9. All personnel will be trained in each operation that they are to perform.

10. Use only prescribed tools and equipment required in the performance of these operations.

11. There will be no horseplay of any kind by employees.

12. Hearing and eye protection will be worn in posted areas.

13. Street clothes will not be worn under powder uniforms.

APPROVAL / PROCEDURE DATE _____

14. Line personnel will:

    a. Read Standing Operating Procedures/Work Instructions:

        1) When first assigned to an operation.

        2) * When a revision or change is made to the SOP/Work Instructions.

        3) When person has not performed the job in excess of 15 calendar days.

        4). Annually

15. * Line Supervision will conduct an annual walk-through talk-through review of the SOP/WI with operator assigned to the operation. This will involve an actual demonstration of the operation using the SOP as a step-by-step guide.

16. Employees, including Supervisors, may be tested on the contents of an SOP or Engineering Program after reading or annual walk-through review.

17. * All training, SOP/WI/EP reviews, and testing will be documented on a form DZI 98. The trainer, Supervisor, and employee trained will sign the DZI 98. Completed DZI 98 will be placed in the individual's training documentation file.

18. Each month, hold Line safety meetings per rules set forth by the Safety Department.

19. When an electric storm approaches the installation:

    a. Personnel working with explosive material which could initiate from lightning will evacuate location (required at melter).

    b. The supervisor in charge of the activity will be solely responsible for ordering the stoppage of operations.

    c. The supervisor is responsible for evacuation of personnel.

20. When possible push carts/trailers. Do not pull carts/trailers.

21. * The definition of "WARNING", "CAUTION" and "NOTE's" used in this Standing Operation Procedure/WI is as follows:

    a. "WARNING" is used to state that possible injury or death could result if procedures are not followed.

    b. "CAUTION" is used to state that possible damage to equipment could result if procedures are not followed.

    c. "NOTE" is used to make special mention of a situation or condition and for information purposes.

22. * Check conductive shoes and wrist stats daily, if required for proper grounding, and record results on appropriate form. Conductive shoes should be checked periodically during the day to ensure dirt or dust on the soles hasn't reduced the conductive properties. Keep soles clean by wiping on mats or similar. Do Not wet bottom of conductive shoes to get shoe tester in green. Only company approved conductive insoles will be worn with conductive shoes.

23. * Supervisors are responsible for ensuring that employees are aware that Material Safety Data Sheet (MSDS) for each hazardous material in their respective production building is available by calling Industrial Safety & Training at ext. 495 or the Safety Department at ext. 498.

    Each building has a listing posted of all hazardous materials within the building. Supervisors will ensure this listing is current. If additional or different hazardous materials are introduced into the building, notify Industrial Hygiene or the Safety Department so an updated listing can be provided. A complete index of MSDS's for items on plant is available upon request. Supervisors are further responsible to ensure that employees are aware of the hazards and PPE associated with the hazardous materials they are working with.

24. * All personnel will yield right-of-way to personnel transporting powder/explosives.

25. When possible, use both hands when handling containers of explosive

26. Each employee is responsible to insure they wear/use all the required personal protective equipment (PPE) and that PPE is in good repair, free of defects and properly fitted.

27. Employees are required to wear eye and/or hearing protection in areas that have signs posted indicating such requirements. Double hearing protection is required for riser knock-out area.

28. Personnel handling ESD sensitive components must wear wrist straps, lab coats, and conductive shoes. Operations will be performed on conductive floors or mats.

29. Personnel involved in handling ESD sensitive components are required to annually attend ESD training as offered by the Safety Department. Supervisors are responsible to ensure individuals under their supervision that require this training are current. ESD Training will be documented on DZI 98.

30. Supervisors are responsible to ensure all recognized hazards are identified and action taken to eliminate or mitigate the hazard.

31. Supervisors are responsible to insure that all their employees are fully trained and aware of the hazards associated with explosive operations prior to the employee being allowed to work live explosives.

32. Each supervisor is responsible to insure that employees have available to them all required PPE, that the PPE is not defective and employees properly wear and use PPE as required.

33. * Each supervisor is responsible to insure that containers of hazardous material are properly marked to insure users are aware of the hazards associated with the material. Usually hazardous materials are transferred from larger containers that are properly marked to smaller ones that are not. This requires that the new containers be labeled with the nomenclature and hazardous markings using NFPA labels. It is the supervisor's responsibility to insure this happens. Information can be obtained for the labels from the MSDS posted in each building or by calling the Safety Dept. at ext. 498.

34. When roads are barricaded or blocked to facilitate explosive operations, employees are to observe the warning signs and/or flashing lights and not bypass these barricades or warnings.

35. All lexan shielding will be checked using an approved static meter at the start of each production run and weekly thereafter. An anti-static spray will be used to neutralize any static buildup.

36. Explosive operations in Building #1145 will not be conducted concurrently with explosive operations in Building 1113.

37. Building supervisors will insure the correct “fire symbol” is posted.

APPROVAL / PROCEDURE DATE _____

38. Operators receiving materials by conveyor must learn the following:
    a. Location of the control switch/emergency cable.
    b. To stop conveyor when emergencies occur, station overloads, equipment failure, etc.
    c. To start and stop conveyor form the same station only.
    d. Do not start conveyor until the problem is corrected.

38. <u>HANTAVIRUS</u> Hantavirus is a serious, often fatal, respiratory condition caused by a virus, which is spread by human contact with rodent feces and urine. It is believed that the *DEER MOUSE, WHITE-FOOTED MOUSE, RICE RAT, and COTTON RAT* are the most common carriers of the virus. Although all four species are found in Kansas, the risk of contracting HANTAVIRUS is extremely low. Precautions outlined here are essential due to the high mortality rate of the disease.

A. TO ENTER BLDG WHERE RODENT FECES AND URINE ARE NOT DISTURBED

1. No PPE (personal protective device) is normally required except a dust mask may be worn if so desired.
2. If unsure, call Industrial Hygiene or Safety Dept.

B. TO MOVE or HANDLE MATERIALS in BLDGS WHERE RODENT CONTAMINATION EXISTS

1. Where evidence of **<u>light</u>** rodent activity exists, areas where droppings or bedding is observed in isolated areas within the Bldg.
    a. Air out the Bldg prior to performing scope of work.
    b. Wear gloves, rubber or latex, when handling contaminated materials.
    c. Wear dust mask if so desired

2. Where evidence of **moderate** rodent activity exists, areas where droppings or bedding is observed in more than isolated areas within the Bldg., but not more than 50% of the surface area.

    a. Air out the Bldg prior to performing scope of work.
    b. Wear gloves, rubber or latex, when performing all tasks.
    c. Wear dust mask as a minimum.
    d. Avoid contact on clothing or skin with excreta or dusts.

e. Spray contaminated materials with 10% bleach solution, thoroughly wetting.
f. Never sweep or vacuum area, use wetted, 10% bleach solution, sponge or mop to clean up.
g. Double bag clean up and wetted PPE for disposal and place in dumpster.
h. Decon PPE with 10% bleach solution prior to bagging, wash hands with soap and water.

NOTE: Do not dispose of half-face RESPIRATORS

3. Where evidence of **heavy** rodent activity exists, areas where droppings or bedding is observed in more than 50% of the areas within the Bldg.

a. Air out Bldg. prior to performing scope of work.
b. Wear gloves, rubber or latex, when performing all tasks.
c. Wear half-face respirator with HEPA cartridges for clean up.

CAUTION: Only properly fitted and trained employees, included in the DZI Respiratory Protection Program, may wear respirators

d. Wear TYVEK coveralls.
e. Avoid contact on clothing and skin with excreta.
f. Spray contaminated materials with 10% bleach solution, thoroughly wetting.
g. Never sweep or vacuum area, use wetted, 10% bleach solution, sponge or mop to clean up.
h. Double bag clean up and wetted PPE for disposal and place in dumpster.
i. Decon PPE with 10% bleach solution prior to bagging, wash hands with soap and water.

NOTE: *Do not dispose of half-face RESPIRATORS*

C. TO CLEAN BUILDING or MATERIALS WHERE RODENT CONTAMINATION EXISTS
1. Air out Bldg. for several minutes.
2. Wear PPE as described above, depending on observation of activity.
3. Wet all contaminated materials with a bleach & water solution (10%).

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4. Avoid skin, clothing, and eye contact with materials.

D. GENERAL PRECAUTIONS

1. Prevention of Rodent Infestation - Recommended for inhabited or to be inhabited buildings:

   a. Clean area and maintain regularly.
   b. Seal holes and cracks around entrances to prevent rodent access.
   c. Set out and maintain rodenticide traps and bait traps.

2. Conditions to Avoid:

   a. Avoid feeding rodents by leaving scraps lying around.
   b. Do not disturb rodent droppings unless they have been disinfected with bleach solution.
   c. Avoid contact with rodents both at work and at home.

CAUTION:	Respirator fit test training through the hospital is required prior to wearing respirators.

B. Area

1. Keep the working area clean.

2. Report spillage of explosive material to supervision/ Line Safety immediately. Clean up per SOP KN-100.

3. Keep aisles/exits clear of obstruction that would prevent or hamper getting out in case of an emergency.

4. Do not store material on/or within 12 inches of the radiators.

5. Do not block area around fire fighting equipment.

6. Exit doors in explosive operating buildings shall be unlatched/unlocked during operating hours.

7. Transportation vehicles will not park within 100 feet of buildings unless loading or unloading.

8. At least once each shift remove all waste materials from workstations. Take material to a control waste station.

9. SOPs show the total number of operators and casuals allowed in a bay or building. This number will not be exceeded.

10. * Emergency eyewash and shower units for an active work area shall be activated weekly to flush the line and to verify proper operation. Documentation of this weekly check will be recorded on DZI 268, "Eye Wash & Shower Inspection" form. Place this form in a prominent spot near the eyewash equipment.
Portable eye wash can not be flow tested. Insure that the liquid eye wash has not expired. Do not use expired eye wash.

C. Machinery

1. Ground all equipment.

2. * Test grounding systems on all equipment according to DOD 4145.26-M, OSHA requirements and the DZI Safety Standard on this subject (as applicable).

3. Only authorized maintenance personnel will perform machine maintenance.

4. Replace working shields removed for repairs or adjustments before resuming operation.

5. Before doing maintenance on an operating line, the area Safety Representative will make sure the area/equipment is decontaminated.

6. * Compressed air used for cleaning equipment/machinery will not exceed 30 PSI. Do not use compressed air to clean your skin or clothing.

7. * Inspect and maintain elevators per Preventive Maintenance schedule. Outside company will perform an annual inspection.

8. Weight test and properly label all overhead hoists annually.

9. All equipment will be locked out/tagged out prior to any maintenance.

10. * Maintenance will not be performed in buildings containing explosives without specific approval of the Safety Dept.

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D. Material Handling Equipment

1. Do not store battery powered equipment in buildings containing ammunition or explosives.

2. Personnel will be furnished and will wear safety equipment as required.

3. * Remove defective equipment from the storage area. Take to appropriate battery shop or location.

4. When parked, forks should be in the lowest position or resting on the floor.

5. Type "EE" and "EX" rated battery powered equipment is the only type authorized for use.

6. Do not use battery powered equipment in areas where explosive dust may be present.

7. Do not leave battery-powered equipment unattended in bays containing ammunition or explosives.

8. Disconnect battery power cable from forklift when stored in the battery shop.

9. Material handling equipment and lifting devices will contain current load test and date of next inspection.

10. Do not exceed forklift load rating.

11. Do not use equipment without a current inspection certification.

12. Forklift operators will be sure that forklift has a current load test/inspection due date.

13. * Forklift operators will be sure that forklift has a current load test/inspection due date. Seat belts will be worn if installed.

13. All forklift operators will have a valid operators license in their possession.

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14. Operating requirements for jeeps, tow motors and forklift operators are:

    a. There must be a distance of three trucks lengths between trucks in operation.

    b. Do not permit lunch boxes, newspapers, extra clothing, tools, on trucks/tow motors or jeeps.

    c. Do not permit riders on trucks/tow motors or jeeps.

    d. Forklifts and tow tractors used outside after dark will have red reflectors on the rear. They will also have front and rear headlights.

    e. Do not make any repairs on equipment. Do not tamper with any mechanical devices.

    f. Report the need for repairs to the Foreman.

    g. * Complete DZI 721 before operating material handling equipment.

    h. Sound horn when approaching ramp intersections, corners and entering buildings.

    i. Do not pull more than three trailers at a time.

E. Product

1. Close and secure windows in unattended buildings containing loaded warheads, explosive parts or bulk explosives.

2. Close and secure windows during off shifts in buildings containing explosive parts or bulk explosives.

3. Post copies of WI, SOP, EP in each area of operation.

4. No more than a half-day supply of explosive or explosive filled material is allowed in operating buildings.

5. When producing inert warhead(s), projectiles, or simulations, they should be immediately identified as “INERT” with label or marker in block letters large enough to be clearly read.

6. Explosive Container(s) Handling:
When explosive material is removed from boxes, shipping containers, crates, barrels, etc., all explosive markings will be obliterated, the container will be carefully inspected to insure all explosive items have been removed, and wiped down with a water-dampened cloth, as needed. An “EMPTY” label will be affixed to the side of the container.

   Cardboard cartons of bulk explosives will be hand wiped with a water-dampened cloth. Any explosive chunks or dust will be poured into the “scrap explosive” container, to remove any remaining powder and placed into an appropriate marked contaminated waste container. The boxes will be folded and put into stacks of 20. Each stack will be banded using ¾ inch banding material and marked as “EXPLOSIVE CONTAMINATED MATERIAL”. Stacks may be less tan 20 boxes if it is the end of the project or if there will be a break of more than four workdays. Contact Production Control for removal of boxes.

   “Ice cream” containers and similar containers from which power has been emptied may be place in a larger box or contaminated waste bag. Lids shall be removed, and the interior inspected to insure it is free of explosive material. The lid will not be placed back on the container but may be put inside it. The lid and container can then be put into the larger box or bag. The larger box or bag shall be clearly labeled “EXPLOSIVE CONTAMINATED MATERIAL”.

   Explosive contaminated floor sweepings and similar contaminated material that is generated following cleanup after an explosive will be placed in the appropriately marked contaminated waste container. Contact Production Control for removal.

7. * Whenever the explosive status for a production line, building, or storage area changes from inert to explosive (or changes from explosive to inert), the Production Superintendent (or designee), Engineer, or responsible party for the operation will immediately notify the Security Dept. Dispatcher at X521, 778-1720, and 1000 Line Guard Gate at X342, of the change in status.

8. If a projectile or warhead (empty or loaded) is dropped or spilled, the operator will immediately notify Supervision. If there is not a safety concern,

the item will be segregate from normal production & the item will be properly identified. Proper notification will be provided to the appropriate personnel.

* If the item contains explosives, Safety (Ext. 498) will be notified immediately before moving the item unless it will cause more of a hazard.

Prior to re-release of the part for use in production, the part will be inspected for visual defects, and if the item is explosive loaded it may be x-rayed for charge damage. If no defects are found, the QC Inspector, with QC Supervision, Production Supervision, Production Control representative approval, may return the item to production for further processing. If defects are found, the part will be properly identified, tagged and processed for disposition.

9. Production areas will have identified "Non-conforming Material Hold Area" available to support control of known or suspect non-conforming material in efficient and timely manner.

10. General Workmanship - After the completion of a process or operation, the workmanship, appearance and functionality of such will be as described in the written and verbal instructions, and according to normal, satisfactory, "common sense" workmanship criteria. Examples are: torqueing with no cross threading & heads flush to the surface, painting without runs, absence of rust, no scratches or dents in products, etc.

Instances where the workmanship, quality of the product is questioned, whether it occurred during handling by DZI personnel or outside sources, will be brought to the attention of Supervision and/or QC.

F. Flammable Liquids

1. Store flammable and combustible liquids in approved location and cabinets.

2. When dispensing flammable liquid, ground the storage container and empty container.

3. Spigots used for dispensing must be self-closing type. Use ONLY approved dispensing pumps.

4. Do not dispense flammable liquids in operating buildings.

5. Place acetone soaked rags in approved containers identified with a Hazardous Waste label.

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6. Waste ink, paint, thinner, alcohol, grease, lubricants, acetone, adhesive and rejected explosive components will be placed in approved containers and labeled with a complete Hazardous Waste label for stamp.

7. Containers other than their original containers used to store Hazardous materials will be identified with an NFPA hazardous class label.

G. Truck, Trailer or Motor Carrier Loading or Unloading

1. Inspect dock plates before use.

2. During loading and unloading of motor vehicles, the brakes must be set. In addition, a chock must be placed on both sides (front and back) of at least one wheel.

3. Display explosive placards on carriers until loading and unloading is completed.

4. If no guide is available, the driver will:

   a. Dismount and physically circle the vehicle.

   b. Visually check the backing area for adequate clearance.

5. All occupants of motor carriers must wear installed seat belts.

6. Driver's and occupants of Government and company owned vehicles are required to wear installed seat belts. Air bags on the passenger side of new pickups/vehicles are not to be turned off or disabled. Supervisors are responsible to ensure compliance.

H. Spills (Explosive)

1. Report any spillage of explosives to your Supervisor immediately.

2. Clean up explosive spills per SOP KN-100.

3. Post approved SOP for explosive spills in area of operation.

I. Hazardous Material Spills:

A. Working Quantities (containers used at individual work stations):

1. Contain area of spill by placing absorbent material completely around spilled material.

2. Soak up spilled material with absorbent material.
3. After all hazardous material has been soaked up, place absorbent materials in a container identified with a hazardous waste label.

4. Transfer container to the hazardous waste storage area.

B. Quantities greater than working quantities spilled inside a building:

1. Contain area of spill by placing absorbent material completely around spilled material.

2. * Notify the supervisor.

C. Outside Spill to the Environment:

1. * Report any outside spill to the environment of ink, paint, thinner, alcohol, grease, lubricants, acetone adhesive and wastewater to Guard Department, Ext. 521 or 620-778-1720.

J. Hazardous Waste General Handling Procedures & Safety Precautions

1. Hazardous wastes are wastes that may pose a threat to human health and/or the environment. Refer to SOP KN-199 for handling procedures and precautions when handling hazardous waste.

K. Gage, Measuring and Testing Device

1. *Any gage, measuring or testing device that is dropped, mishandled, or suspected of being inaccurate through visual inspection or erratic or unsatisfactory performance, shall not be used. Immediately identify suspect gages, measuring or testing devices with a card or tape with words "Do Not Use - Suspect" or "Do Not Use - Dropped" to prevent usage. Notify the Supervisor for calibration.

2. *Operators shall verify, prior to use, that gages, measuring & testing equipment/tools have passed a current calibration certification. This will be verified through a calibration decal/label or certification card which references the gage/tool number, current certification date & next due date.

APPROVAL / PROCEDURE DATE _____

Equipment/tooling, instruments, or gages used with visual settings (either numerical or indicator type) will be checked prior to use to verify that settings are correct as indicated in the specific SOP or WI, or EP. Immediately notify Supervision if above items not certified or set correctly.

* Denotes Change(s)

APPROVAL / PROCEDURE DATE _____

INDEX

A-GEN-45

1. Valve Markers in field are 4"x4" wood posts painted red with letters & figures painted white. Distance from marker post to valve paint on valve side of marker Post thus: 3 W, 7 E; etc.

2. Hydrants painted red and number of hydrant with No. hydrant valve painted in white on hydrant.

3. Letters in valve marking designate the following:

   M - Main line valves, Size 6" to 12".
   S - Service Line Valves to Bldgs. Size 1¼" to 6".
   H - Hydrant valves, Size 6".
   T - Elevated Tank Valve, Size 12"

4. Figures in valve or hydrant marking designate both the area or load line in which located and the individual valve or hydrant.

EXAMPLES

M-1101 - Main Line Valve, 1100 Area

S-105 - Service Line Valve, Administration Area

S-02-1 - Service Line Valve, Misc. Bldg. No. 62 (BLDG. DESTROYED 9-2-81, VALVE IS STILL INTACT BUT COVERED OVER AND LINE IS CAPPED OFF) REF. SHT. 24 (3)

H 851 - Hydrant with 6" Hydrant valve, Primer Line

1460 - Hydrant with no hydrant valve, 1400 Area

T-1-1 - Elevated Tank valves, Tank No. 1

T-1-2 - Altitude Valve, Tank No. 1

S-y11-D, D-y14- } Valves for Deluge Systems

(4) 5. ALL PIPE SHALL BE LAID WITH A MINIMUM DIMINSION OF 3'-0" TOP OF PIPE TO FINISHED GRADE. SHOULD OTHER UTILITIES INTERFERE WITH WATER MAINS, THE WATER MAINS SHALL BE LOWERED BELOW SUCH UTILITIES.

6. ALL WATER MAINS AND SERVICE CONNECTIONS SHALL BE OF MATERIALS ACCEPTED BY THE AMERICAN WATER WORKS ASSOCIATION.

(4) 7. LOCATIONS OF WATER LINES SHOWN ARE APPROXIMATE.

8-3-89	4
1-15-81	2
DATE	REV.
MICROFILMED	

D&Z DAY AND ZIMMERMANN, INC.
KANSAS DIVISION
OPERATOR OF
KANSAS ARMY AMMUNITION PLANT
PARSONS, KANSAS

SPECIAL NOTES
STAMP MARK OR ETCH PIECE MARK ON EACH PART.
BREAK ALL SHARP EDGES UNLESS OTHERWISE NOTED.
APPLICABLE TOLERANCES UNLESS OTHERWISE NOTED.
COMMON FRACTIONS ± 1/64
TWO DECIMALS ± .01
THREE DECIMALS ± .001
ANGLE ± 1°0'0"
SURFACE FINISH 63

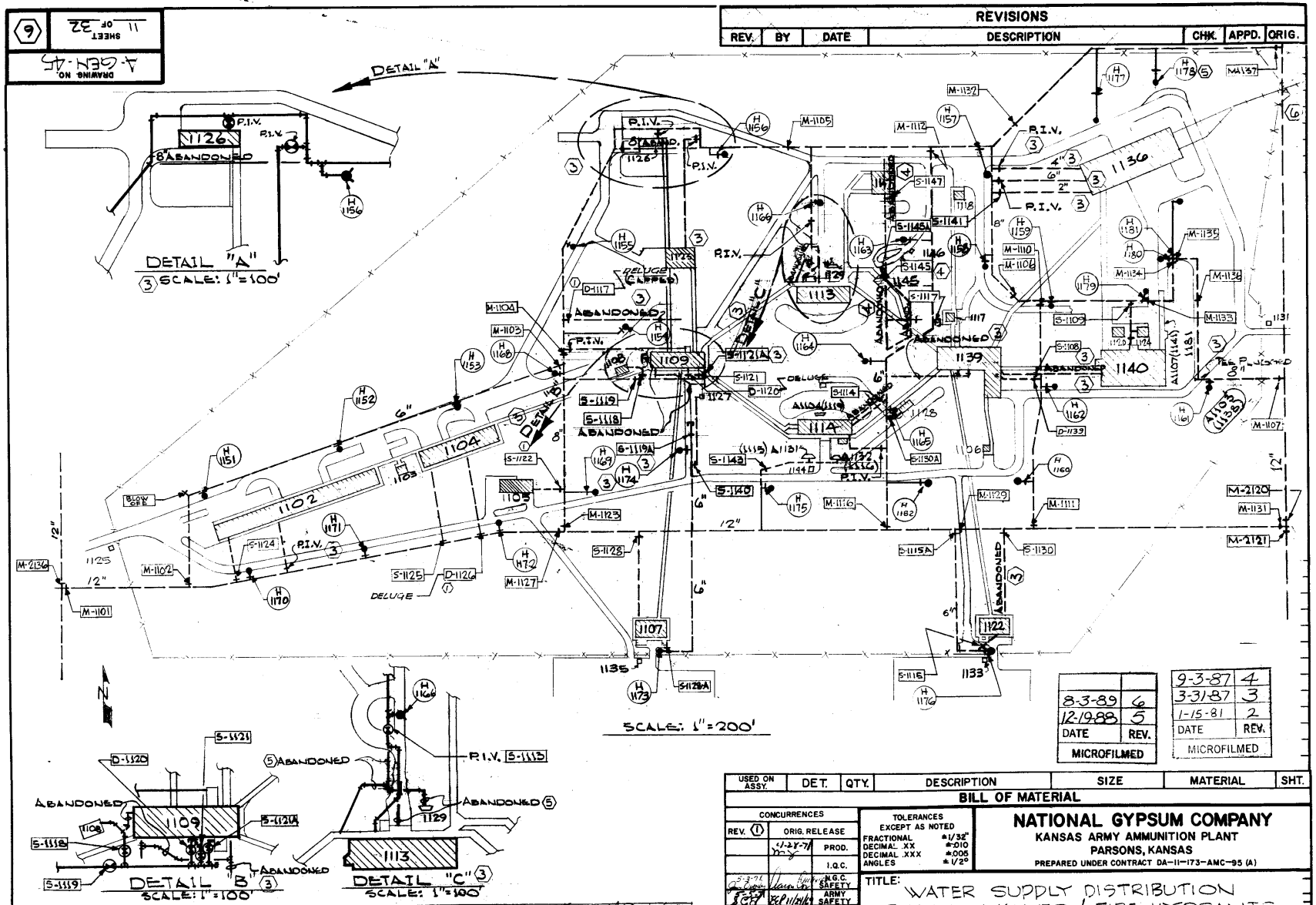
RD NO.	REV.	BY	DATE	DESCRIPTION OF REVISION	PROD.	ENGR.	PROD.	SAFETY	ARMY
—	(4)	G.G.	1-7-89	ADDED SHTS. 28A, 29, 30, 31 & 32, ADDED NOTES 5, 6, & 7					
—	(3)	G.G.	2-24-87	ADDED NOTE TO VALVE S-42-1					
2364	2	S.B.	2-13-73	THIS SHT REDRAWN					

REF. DWG.

APPROVALS - U. S. ARMY
SAFETY DATE 14 Feb 73 | COMMANDING OFFICER DATE
APPROVALS - DAY & ZIMMERMANN, INC.
SAFETY DATE | PLANT MANAGER DATE 2-14-73
ENGINEERING DATE 2-13-73 | PRODUCTION DATE 2/15/73
DRAFTSMAN DATE 2-13-73 | CHECKER DATE 2-13-73 | ENGINEER DATE
SCALE — | CH. DRAFTSMAN DATE | BILL OF MATL. —

TITLE
WATER SUPPLY DISTRIBUTION SYSTEM GEN AREA MARKING OF VALVES & HYDRANTS INDEX SHT. 1 THRU SHT. 32 (4)
AREA GEN BLDG. —
SHEET INDEX OF
A-GEN-45

APPENDIX XX



REVISIONS						
REV.	BY	DATE	DESCRIPTION	CHK.	APPD.	ORIG.
⑥	G.G.	6/7/89	CORRECTED DWG. BY RELOCATING 12" FEEDER MAIN INSIDE WEST FENCE (AT R.R. GATE) AND ADDED SHEETS 28A TO 32	L.D.C.	W.T.W.	
④	G.G.	7/24/87	REVISED TO AS BUILT CONDITION	L.D.C.		
⑤	G.G.	8/5/88	REVISED TO AS BUILT CONDITION	L.D.C.		
③	G.G.	2/29/87	REVISED TO AS BUILT CONDITION			
②	BOGLE	2-8-73	NO CHG THIS SHT.			
①	J.C.M	2-24-71	ADDED SHT 28 & REVISED TO AS BLT COND. PER DR 1457 & DR 1573			
REV.	BY	DATE	DESCRIPTION	CHK	APPD	ORIG.

D.R. 6-9

8-3-89	6
12-1988	5
DATE	REV.
MICROFILMED	

9-3-87	4
3-31-87	3
1-15-81	2
DATE	REV.
MICROFILMED	

USED ON ASSY.	DET.	QTY.	DESCRIPTION	SIZE	MATERIAL	SHT.

BILL OF MATERIAL

CONCURRENCES

REV. ①	ORIG. RELEASE
	PROD.
	I.Q.C.
	N.G.C. SAFETY
	ARMY SAFETY
	ARMY OPER.

TOLERANCES EXCEPT AS NOTED

FRACTIONAL	±1/32"
DECIMAL .XX	±.010
DECIMAL .XXX	±.005
ANGLES	± 1/2°

NATIONAL GYPSUM COMPANY
KANSAS ARMY AMMUNITION PLANT
PARSONS, KANSAS
PREPARED UNDER CONTRACT DA-11-173-AMC-95 (A)

TITLE: WATER SUPPLY DISTRIBUTION SYSTEM - VALVES & FIRE HYDRANTS
1100 AREA

APPROVED

5-4-71	DIR. OF ENGINEERING	11/7/69	CHIEF DRAFTSMAN	11/6/69	DESIGNED BY
	GENERAL MANAGER		CHIEF DESIGNER	11/	DRAWN BY STEPHENS 8.1.69
	COMMANDING OFFICER		CHIEF ENGINEER	11-13-69	CHECKED BY

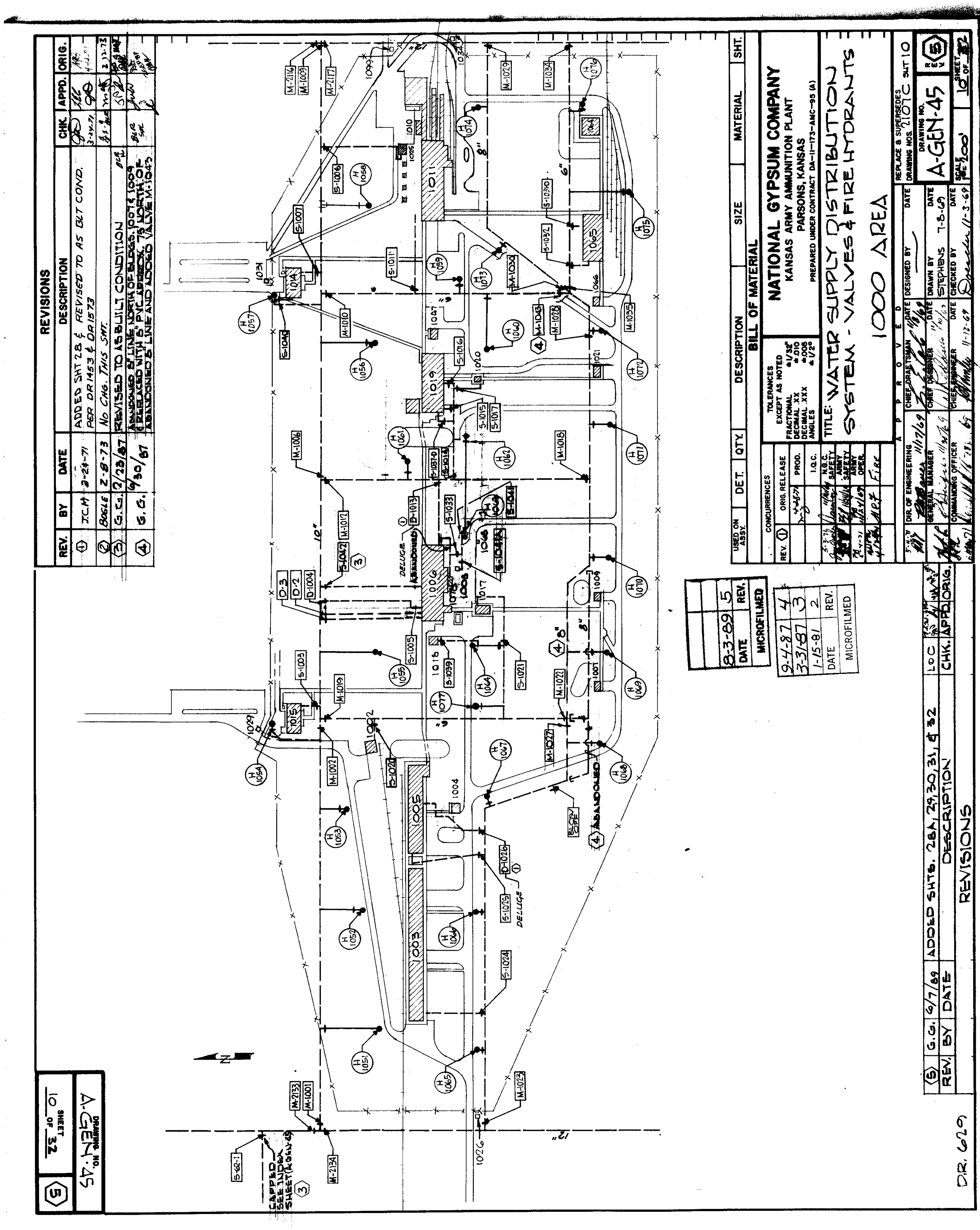
REPLACE & SUPERSEDES DRAWING NOS. 2107C - SHT 11

DRAWING NO. A-GEN-45 REV. ⑥

SCALE AS NOTED

SHEET 11 OF 32

APPENDIX XX


REVISIONS
BILL OF MATERIAL
NATIONAL GYPSUM COMPANY
KANSAS ARMY AMMUNITION PLANT
PARSONS, KANSAS
TITLE: WATER SUPPLY DISTRIBUTION SYSTEM - VALVES & FIRE HYDRANTS
1000 AREA
A-GEN-45
MICROFILMED
DR. 629

APPENDIX XX

STI SP001 AST Record

OWNER INFORMATION	FACILITY INFORMATION	INSTALLER INFORMATION
Day & Zimmermann Kansas LLC	Day & Zimmermann Kansas LLC	
Name	Name	Name
23102 Rush Road	21017 Scott Road	
Number and Street	Number and Street	Number and Street
Parsons, Kansas 67357-8403	Parsons, Kansas 67357	
City, State, Zip Code	City, State, Zip Code	City, State, Zip Code

.

TANK ID _____

SPECIFICATION:

Design: ☐ UL _____ ☐ SWRI _____ ☐ Horizontal ☐ Vertical ☐ Rectangular
☐ API _____ ☐ Other _____
☐ Unknown

Manufacturer: Contents: Construction Date: Last Repair/Reconstruction Date:

Dimensions: Capacity: Last Change of Service Date:

Construction: ☐ Bare Steel ☐ Cathodically Protected (Check one: A. ☐ Galvanic or B. ☐ Impressed Current) Date Installed: _____
☐ Coated Steel ☐ Concrete ☐ Plastic/Fiberglass ☐ Other
☐ Double-Bottom ☐ Double-Wall ☐ Lined Date Installed: _____

Containment: ☐ Earthen Dike ☐ Steel Dike ☐ Concrete ☐ Synthetic Liner ☐ Other _____

CRDM: ☐ Date Installed: _____ Type: _____

Release Prevention Barrier: ☐ Date Installed: _____ Type: _____

TANK ID _____

SPECIFICATION:

Design: ☐ UL _____ ☐ SWRI _____ ☐ Horizontal ☐ Vertical ☐ Rectangular

☐ API _____ ☐ Other _____

☐ Unknown

Manufacturer: Contents: Construction Date: Last Repair/Reconstruction Date:

Dimensions: Capacity: Last Change of Service Date:

Construction: ☐ Bare Steel ☐ Cathodically Protected (Check one: A. ☐ Galvanic or B. ☐ Impressed Current) Date Installed: _____

☐ Coated Steel ☐ Concrete ☐ Plastic/Fiberglass ☐ Other

☐ Double-Bottom ☐ Double-Wall ☐ Lined Date Installed: _____

Containment: ☐ Earthen Dike ☐ Steel Dike ☐ Concrete ☐ Synthetic Liner ☐ Other _____

CRDM: ☐ Date Installed: Type:

Release Prevention Barrier: ☐ Date Installed: _____ Type: _____

TANK ID _____

SPECIFICATION:

Design: ☐ UL _____ ☐ SWRI _____ ☐ Horizontal ☐ Vertical ☐ Rectangular

☐ API _____

☐ Unknown ☐ Other _____

Manufacturer: Contents: Construction Date: Last Repair/Reconstruction Date:

Dimensions: Capacity: Last Change of Service Date:

Construction: ☐ Bare Steel ☐ Cathodically Protected (Check one: A. ☐ Galvanic or B. ☐ Impressed Current) Date Installed: _____

☐ Coated Steel ☐ Concrete ☐ Plastic/Fiberglass ☐ Other

☐ Double-Bottom ☐ Double-Wall ☐ Lined Date Installed: _____

Containment: ☐ Earthen Dike ☐ Steel Dike ☐ Concrete ☐ Synthetic Liner ☐ Other _____

CRDM: ☐ Date Installed: Type:

Release Prevention Barrier: ☐ Date Installed: _____ Type: _____

TANK ID _____

SPECIFICATION:

Design: ☐ UL _____ ☐ SWRI _____ ☐ Horizontal ☐ Vertical ☐ Rectangular

☐ API _____

☐ Unknown ☐ Other _____

Manufacturer: Contents: Construction Date: Last Repair/Reconstruction Date:

Dimensions: Capacity: Last Change of Service Date:

Construction: ☐ Bare Steel ☐ Cathodically Protected (Check one: A. ☐ Galvanic or B. ☐ Impressed Current) Date Installed: _____

☐ Coated Steel ☐ Concrete ☐ Plastic/Fiberglass ☐ Other

☐ Double-Bottom ☐ Double-Wall ☐ Lined Date Installed: _____

Containment: ☐ Earthen Dike ☐ Steel Dike ☐ Concrete ☐ Synthetic Liner ☐ Other _____

CRDM: ☐ Date Installed: Type:

Release Prevention Barrier: ☐ Date Installed: _____ Type: _____

TANK ID _____

SPECIFICATION:

Design: ☐ UL _____ ☐ SWRI _____ ☐ Horizontal ☐ Vertical ☐ Rectangular

☐ API _____

☐ Unknown ☐ Other _____

Manufacturer: Contents: Construction Date: Last Repair/Reconstruction Date:

Dimensions: Capacity: Last Change of Service Date:

Construction: ☐ Bare Steel ☐ Cathodically Protected (Check one: A. ☐ Galvanic or B. ☐ Impressed Current) Date Installed: _____

☐ Coated Steel ☐ Concrete ☐ Plastic/Fiberglass ☐ Other

☐ Double-Bottom ☐ Double-Wall ☐ Lined Date Installed: _____

Containment: ☐ Earthen Dike ☐ Steel Dike ☐ Concrete ☐ Synthetic Liner ☐ Other _____

CRDM: ☐ Date Installed: Type:

Release Prevention Barrier: ☐ Date Installed: _____ Type: _____

STI SP001 Monthly Inspection Checklist

General Inspection Information:

Inspection Date: _____ Retain Until Date: _____ (36 months from inspection date)

Prior Inspection Date: _____ Inspector Name: _____

Tanks Inspected (ID #'s): _____

Inspection Guidance:

- For equipment not included in this Standard, follow the manufacturer recommended inspection/testing schedules and procedures.
- The periodic AST Inspection is intended for monitoring the external AST condition and its containment structure. This visual inspection does not require a Certified Inspector. It shall be performed by an owner's inspector who is familiar with the site and can identify changes and developing problems.
- Upon discovery of water in the primary tank, secondary containment area, interstice, or spill container, remove promptly or take other corrective action. Before discharge to the environment, inspect the liquid for regulated products or other contaminants and disposed of it properly.
- (*) designates an item in a non-conformance status. This indicates that action is required to address a problem.
- Non-conforming items important to tank or containment integrity require evaluation by an engineer experienced in AST design, a Certified Inspector, or a tank manufacturer who will determine the corrective action. Note the non-conformance and corresponding corrective action in the comment section.
- Retain the completed checklists for 36 months.
- **In the event of severe weather (snow, ice, wind storms) or maintenance (such as painting) that could affect the operation of critical components (normal and emergency vents, valves), an inspection of these components is required as soon as the equipment is safely accessible after the event.**

Item	Task	Status	Comments
1.0 Tank Containment			
1.1 Containment structure	Check for water, debris, cracks or fire hazard	☐Yes* ☐No ☐N/A	
1.2 Primary tank	Check for water	☐Yes* ☐No	
1.3 Containment drain valves	Operable and in a closed position	☐Yes ☐No* ☐N/A	
1.4 Pathways and entry	Clear and gates/doors operable	☐Yes ☐No* ☐N/A	
2.0 Leak Detection			
2.1 Tank	Visible signs of leakage	☐Yes* ☐No	
2.2 Secondary Containment	Visible signs of leakage from tank into secondary containment	☐Yes* ☐No	
2.3 Surrounding soil	Visible signs of leakage	☐Yes* ☐No ☐N/A	
2.4 Interstice	Visible signs of leakage	☐Yes* ☐No ☐N/A	

Item	Task	Status	Comments
3.0 Tank Equipment			
3.1 Valves	a. Check for leaks.	☐Yes* ☐No ☐N/A	
	b. Tank drain valves must be kept locked.	☐Yes* ☐No ☐N/A	
3.2 Spill containment boxes on fill pipe	a. Inspect for debris, residue, and water in the box and remove.	☐Yes* ☐No ☐N/A	
	b. Drain valves must be operable and closed.	☐Yes* ☐No ☐N/A	
3.3 Liquid level equipment	a. Both visual and mechanical devices must be inspected for physical damage.	☐Yes ☐No* ☐N/A	
	b. Check that the device is easily readable	☐Yes ☐No* ☐N/A	
3.4 Overfill equipment	a. If equipped with a "test" button, activate the audible horn or light to confirm operation. This could be battery powered. Replace the battery if needed	☐Yes ☐No* ☐N/A	
	b. If overfill valve is equipped with a mechanical test mechanism, actuate the mechanism to confirm operation.	☐Yes ☐No* ☐N/A	
3.5 Piping connections	Check for leaks, corrosion and damage	☐Yes* ☐No	
4.0 Tank Attachments and Appurtenances			
4.1 Ladder and platform structure	Secure with no sign of severe corrosion or damage?	☐Yes ☐No* ☐N/A	
5.0 Other Conditions			
5.1 Are there other conditions that should be addressed for continued safe operation or that may affect the site spill prevention plan?		☐Yes* ☐No	

Additional Comments:

STI SP001 Annual Inspection Checklist

General Inspection Information:

Inspection Date: _____ Retain Until Date: _____ (36 months from inspection date)

Prior Inspection Date: _____ Inspector Name: _____

Tanks Inspected (ID #'s): _____

Inspection Guidance:

- For equipment not included in this Standard, follow the manufacturer recommended inspection/testing schedules and procedures.
- The periodic AST Inspection is intended for monitoring the external AST condition and its containment structure. This visual inspection does not require a Certified Inspector. It shall be performed by an owner's inspector who is familiar with the site and can identify changes and developing problems.
- Remove promptly upon discovery standing water or liquid in the primary tank, secondary containment area, interstice, or spill container. Before discharge to the environment, inspect the liquid for regulated products or other contaminants and disposed of it properly.
- In order to comply with EPA SPCC (Spill Prevention, Control and Countermeasure) rules, a facility must regularly test liquid level sensing devices to ensure proper operation (40 CFR 112.8(c)(8)(v)).
- (*) designates an item in a non-conformance status. This indicates that action is required to address a problem.
- Non-conforming items important to tank or containment integrity require evaluation by an engineer experienced in AST design, a Certified Inspector, or a tank manufacturer who will determine the corrective action. Note the non-conformance and corresponding corrective action in the comment section.
- Retain the completed checklists for 36 months.
- Complete this checklist on an annual basis supplemental to the owner monthly-performed inspection checklists.
- **Note: If a change has occurred to the tank system or containment that may affect the SPCC plan, the condition should be evaluated against the current plan requirement by a Professional Engineer knowledgeable in SPCC development and implementation.**

Item	Task	Status	Comments
1.0 Tank Containment			
1.1 Containment structure	Check for: • Holes or cracks in containment wall or floor • Washout • Liner degradation • Corrosion • Leakage • Paint failure • Tank settling	☐Yes* ☐No ☐N/A	
2.0 Tank Foundation and Supports			
2.1 Foundation	Settlement or foundation washout?	☐Yes* ☐No	
2.2 Concrete pad or ring wall	Cracking or spalling?	☐Yes* ☐No ☐N/A	

Item	Task	Status	Comments
2.3 Supports	Check for corrosion, paint failure, etc.	☐Yes* ☐No ☐N/A	
2.4 Water drainage	Water drains away from tank?	☐Yes ☐No* ☐N/A	
2.5 Tank grounding	Strap secured and in good condition?	☐Yes ☐No* ☐N/A	
3.0 Cathodic Protection			
3.1 Gavlvanic cathodic protection system	Confirm system is functional, includes the wire connections for galvanic systems	☐Yes ☐No* ☐N/A	
3.2 Impressed current system	a. Inspect the operational components (power switch, meters, and alarms).	☐Yes ☐No*☐N/A	
	b. Record hour meter, ammeter and voltmeter readings.	☐Yes ☐No* ☐N/A	
4.0 Tank Shell, Heads, Roof			
4.1 Coating	Check for coating failure	☐Yes* ☐No	
4.2 Steel condition	Check for: • Dents • Buckling • Bulging • Corrosion • Cracking	☐Yes* ☐No	
4.3 Roof slope	Check for low points and standing water	☐Yes* ☐No ☐N/A	
5.0 Tank Equipment			
5.1 Vents	Verify that components are moving freely and vent passageways are not obstructed for: • Emergency vent covers • Pressure/vacuum vent poppets • Other moving vent components	☐Yes* ☐No	

Item	Task	Status	Comments
5.2 Valves	Check the condition of all valves for leaks, corrosion and damage.	☐Yes* ☐No	
5.2.1 Anti-siphon, check and gate valves	Cycle the valve open and closed and check for proper operation.	☐Yes ☐No* ☐N/A	
5.2.2 Pressure regulator valve	Check for proper operation. (Note that there may be small, 1/4 inch drain plugs in the bottom of the valve that are not visible by looking from above only)	☐Yes ☐No* ☐N/A	
5.2.3 Expansion relief valve	Check that the valve is in the proper orientation. (Note that fuel must be discharged back to the tank via a separate pipe or tubing.)	☐Yes ☐No* ☐N/A	
5.2.4 Solenoid valves	Cycle power to valve to check operation. (Electrical solenoids can be verified by listening to the plunger opening and closing. If no audible confirmation, the valve should be inspected for the presence and operation of the plunger.)	☐Yes ☐No* ☐N/A	
5.2.5 Fire and shear valves	a. Manually cycle the valve to ensure components are moving freely and that the valve handle or lever has clearance to allow valve to close completely.	☐Yes ☐No* ☐N/A	
	b. Valves must not be wired in open position.	☐Yes ☐No* ☐N/A	

Item	Task	Status	Comments
	c. Make sure fusible element is in place and correctly positioned.	☐Yes ☐No* ☐N/A	
	d. Be sure test ports are sealed with plug after testing is complete and no temporary test fixture or component remains connected to valve.	☐Yes ☐No* ☐N/A	
5.3 Interstitial leak detection equipment	Check condition of equipment, including: • The window is clean and clear in sight leak gauges. • The wire connections of electronic gauges for tightness and corrosion • Activate the test button, if applicable.	☐Yes ☐No* ☐N/A	
5.4 Spill containment boxes on fill pipe	a. If corrosion, damage, or wear has compromised the ability of the unit to perform spill containment functions, replace the unit.	☐Yes* ☐No ☐N/A	
	b. Inspect the connections to the AST for tightness, as well as the bolts, nuts, washers for condition and replace if necessary.	☐Yes*☐No ☐N/A	
	c. Drain valves must be operable and closed	☐Yes* ☐No ☐N/A	
5.5 Strainer	a. Check that the strainer is clean and in good condition.	☐Yes ☐No* ☐N/A	

Item	Task	Status	Comments
5.5 Strainer	b. Access strainer basket and check cap and gasket seal as well as bolts.	☐Yes ☐No* ☐N/A	
5.6 Filter	a. Check that the filter is in good condition and is within the manufacturer's expected service life. Replace, if necessary.	☐Yes ☐No* ☐N/A	
	b. Check for leaks and decreased fuel flow	☐Yes ☐No* ☐N/A	
5.7 Flame arrestors	Follow manufacturer's instructions. Check for corrosion and blockage of air passages.	☐Yes* ☐No ☐	
5.8 Leak detector for submersible pump systems	Test according to manufacturer's instructions and authority having jurisdiction (AHJ). Verify leak detectors are suited and properly installed for aboveground use.	☐Yes ☐No* ☐N/A	
5.9 Liquid level equipment	a. Has equipment been tested to ensure proper operation?	☐Yes ☐No* ☐N/A	
	b. Does equipment operate as required?	☐Yes ☐No* ☐N/A	
	c. Follow manufacturer's instructions	☐Yes ☐No* ☐N/A	
5.10 Overfill equipment	a. Follow manufacturer's instructions and regulatory requirements for inspection and functionality verification.	☐Yes ☐No* ☐N/A	
	b. Confirm device is suited for above ground use by the manufacturer	☐Yes ☐No* ☐N/A	

Item	Task	Status	Comments
6.0 Insulated Tanks			
6.1 Insulation	Check condition of insulation for: • Missing sections • Areas of moisture • Mold • Damage	☐Yes* ☐No ☐	
6.2 Insulation cover or jacket	Check for damage that will allow water intrusion	☐Yes* No ☐N	
7.0 Miscellaneous			
7.1 Electrical wiring and boxes	Are they in good condition?	☐Yes ☐No* ☐N/A	
7.2 Labels and tags	Ensure that all labels and tags are intact and readable.	☐Yes ☐No* ☐N/A	

Additional Comments:

STI SP001 Portable Container Monthly Inspection Checklist

General Inspection Information:

Inspection Date: _____ Retain Until Date: _____ (36 months from inspection date)

Prior Inspection Date: _____ Inspector Name: _____

Containers Inspected (ID #'s): _____

Inspection Guidance:

- For equipment not included in this Standard, follow the manufacturer recommended inspection/testing schedules and procedures.
- The periodic AST Inspection is intended for monitoring the external AST condition and its containment structure. This visual inspection does not require a Certified Inspector. It shall be performed by an owner's inspector who is familiar with the site and can identify changes and developing problems.
- (*) designates an item in a non-conformance status. This indicates that action is required to address a problem.
- Non-conforming items important to tank or containment integrity require evaluation by an engineer experienced in AST design, a Certified Inspector, or a tank manufacturer who will determine the corrective action. Note the non-conformance and corresponding corrective action in the comment section.
- Retain the completed checklists for 36 months.

Item	Area: _____	Area: _____	Area: _____	Area: _____
1.0 AST Containment/Storage Area				
1.1 ASTs within designated storage area?	☐Yes ☐No*	☐Yes ☐No*	☐Yes ☐No*	☐Yes ☐No*
1.2 Debris, spills, or other fire hazards in containment or storage area?	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No
1.3 Water in outdoor secondary containment?	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No
1.4 Drain valves operable and in a closed position?	☐Yes ☐No*	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No
1.5 Egress pathways clear and gates/doors operable?	☐Yes ☐No*	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No

Item	Area: _____	Area: _____	Area: _____	Area: _____
2.0 Leak Detection				
2.1 Visible signs of leakage around the container or storage area?	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No
3.0 Container				
3.0 Noticeable container distortions, buckling, denting or bulging?	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No	☐Yes* ☐No

Comments:

APPENDIX G-2

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATION

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION G. CONTINGENCY PLAN

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
G-1	Contingency Plan	270.14(b)(7)		Section G-1	
G-2	Emergency Coordinators	270.14(b)(7); 264.52(d); 264.55	There must at least be one primary emergency coordinator available at all times.	Section G-2	
G-3	Implementation	270.14(b)(7); 264.52(a); 264.56(d)	Emergency coordinator to determine that facility has had a release, fire, or explosion that could threaten human health or the environment outside facility.	Section G-3	
G-4	Emergency Actions	270.14(b)(7); 264.56		Section G-4	
G-4a	Notification	270.14(b)(7); 264.56(a)	Describe the method for immediate notification of facility personnel and necessary state and local agencies.	Section G-4a	
G-4b	Identification of Hazardous Materials	270.14(b)(7); 264.56(b)	Observation, records or manifest, or chemical analysis may be used by emergency coordinator.	Section G-4b	
G-4c	Assessment	270.14(b)(7); 264.56(c),(d)	Direct and indirect effects must be considered.	Section G-4c	
G-4d	Control Procedures	270.14(b)(7); 264.52(a)	Contingency plan must describe actions facility personnel must take in response to fires, explosions, or any unplanned release of hazardous waste to air, soil, or surface water.	Section G-4d	
G-4e	Prevention of Recurrence of Spread of Fires, Explosions, or Releases	270.14(b)(7); 264.56(e)	Measures must include stopping processes and operations, collecting and containing release of waste, and removing or isolating containers.	Section G-4e	
G-4e(1)	Monitor for Leaks, Pressure Buildup, Gas Generation or Ruptures of Released Material	270.14(b)(7); 264.56(f)	This item applies if facility stops operations.	Section G-4e(1)	
G-4f	Storage, Treatment, and Disposal of Released Material	270.14(b)(7); 264.56(g)	After emergency, emergency coordinator must provide for treating, storing, and disposing of recovered waste.	Section G-4f	
G-4g	Incompatible Waste	270.14(b)(7); 264.56(h)(1)	Until cleanup is complete, assure that incompatible waste is not stored together.	Section G-4g	
G-4h	Post-Emergency Equipment Management	270.14(b)(7); 264.56(h)(2)	Decontamination is required for emergency equipment.	Section G-4h	
G-4h(1)	Notification of Federal, State and Local Authorities before Resuming Operations	270.14(b)(7); 264.56(i)	Federal or state authorities must be notified within 15 days of occurrence.	Section G-4h(1)	
G-4i	Container Spills and Leakage	270.14(b)(7); 264.52; 264.71	Specify procedures to be used when responding to container spills and leakage.	Section G-4i	
G-4j	Tank Spills and Leakage		For a tank or containment system from which there has been a leak or spill:	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION G. CONTINGENCY PLAN

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
G-4j(1)	Stopping Waste Addition	270.14(b)(7); 264.196(a)	Document that the owner/operator will immediately stop the flow of hazardous waste.	NA	
G-4j(2)	Removing Waste	270.14(b)(7); 264.196(b)	Owner/operator will, within 24 hours after leak detected, remove waste and allow inspection and repair of the tank system to be performed.	NA	
G-4j(3)	Containment of Visible Releases	270.14(b)(7); 264.196(c)	Specify that a visual inspection of a release will be conducted, demonstrate further mitigation of leak will be prevented, and visible contamination will be removed and disposed of properly.	NA	
G-4j(4)	Notification Reports	270.14(b)(7); 264.196(d)	Demonstrate that any release to the environment will be reported to regional administrator within 24 hours of detection.	NA	
G-4j(5)	Provisions of Secondary Containment, Repair, or Closure	270.14(b)(7); 264.196(e)	Provision of secondary containment repair, otherwise closure is required.	NA	
G4-k	Surface Impoundment Spills and Leakage	270.14(b)(7); 264.227	Surface impoundments must be removed from service when:	NA	
G4-k(1)	Emergency Repairs	270.14(b)(7); 264.227	Describe procedures for removing surface impoundments from service.	NA	
G4-k(1)(a)	Stopping Waste Addition	270.14(b)(7); 264.227(b)(1)	Procedures for stopping waste addition to the impoundment.	NA	
G4-k(1)(b)	Containing Leaks	270.14(b)(7); 264.227(b)(2)	Procedures for containing leak.	NA	
G4-k(1)(c)	Stopping Leaks	270.14(b)(7); 264.227(b)(3)	Procedures for stopping leak.	NA	
G4-k(1)(d)	Preventing Catastrophic Failure	270.14(b)(7); 264.227(b)(4)	Procedures to stop or prevent catastrophic failure.	NA	
G4-k(1)(e)	Emptying the Impoundment	270.14(b)(7); 264.227(b)(5)	Procedures for emptying impoundment, if necessary.	NA	
G4-k(2)	Certification	270.14(b)(7); 264.226 (c); 264.227(d)(1)	Procedures for recertifying a dike's structural integrity if impoundment is removed from service due to actual or imminent failure.	NA	
G4-k(3)	Repairs as a Result of Sudden Drop	270.14(b)(7); 264.227(d)(2)	Procedures to follow if impoundment is removed from service due to sudden drop in liquid level of the following:	NA	
G4-k(3)(a)	Existing Portions of Surface Impoundment	270.14(b)(7); 264.227(d)(2)(i)	Installation of liner for any existing portion of impoundment.	NA	
G4-k(3)(b)	Other Portions of the Surface Impoundment	270.14(b)(7); 264.227(d)(2)(ii)	Certification by qualified engineer for other than existing portions of the impoundment.	NA	
G4-l	Containment Building Leaks	270.14(b)(7); 264.1101(c)(3)	Through active life of building if owner/operator detects condition that could lead to release of hazardous waste.	NA	

CHECKLIST FOR REVIEW OF FEDERAL RCRA PERMIT APPLICATIONS

SECTION G. CONTINGENCY PLAN

Section and Requirement		Federal Regulation	Review Consideration[a]	Location in Application[b]	See Attached Comment Number[c]
G-4l(1)	Repair of Containment Building	270.14(b)(7); 264.1101(c)(3)	Within 7 days of detection, owner/operator must contact regional administrator. Enter record of discovery, remove contaminated portion of building from service, determine repair steps, and establish schedule for repair.	NA	
G-4l(2)	Certification Following Repair	270.14(b)(7); 264.1101(c)(3)(iii)	Upon completion of repairs owner/operator must notify regional administrator.	NA	
G-4m	Drip Pad Spills and Leakage	270.14(b)(7); 264.573(m)	Throughout the active life of the drip pad, if a condition is detected that may have or has caused a release of hazardous waste, it must be repaired within a reasonably prompt period of time.	NA	
G-4m(1)	Stopping Waste Addition	270.14(b)(7); 264.573(m)(1)(ii)	Upon detection of leakage in the leak detection system, immediately remove the affected portion of the drip pad from service.	NA	
G-4m(2)	Determine Appropriate Cleanup and Repair	270.14(b)(7); 264.573(m)(1)(iii)	Establish a schedule for accomplishing the repairs.	NA	
G-4m(3)	Notification	270.14(b)(7); 264.573(m)(1)(iv)	Within 24 hours after discovery of the condition, notify the Regional Administrator or state director. Within 10 working days, provide written notice and a description of the repairs to be made to the drip pad.	NA	
G-4m(4)	Certification	270.14(b)(7); 264.573(m)(3)	Upon completing all repairs and clean up, provide certification signed by an independent, qualified registered PE.	NA	
G-5	Emergency Equipment	270.14(b)(7); 264.52(e)		Section G-5	
G-6	Arrangements with Local Authorities	270.14(b)(7); 264.37; 264.52(c)	Police and fire departments, hospitals, and emergency response teams must be notified by owner/operator. Document refusal to enter into a coordination agreement.	Section G-6	
G-7	Evacuation Plan for Facility Personnel	270.14(b)(7); 264.52(f)	Evacuation plans must include evacuation signals and primary and alternate evacuation routes.	Section G-7	
G-8	Required Report Procedures for Recordkeeping and Reporting to Federal Authority	270.14(b)(7); 264.56(j)	Owner/operator must note on operation record the time, date and details of incidents which require implementation of contingency plan.	Section G-8	
G-9	Location and Distribution of Contingency Plan	270.14(b)(7); 264.53	Copy of contingency plan must be maintained at facility and submitted to local authorities.	Section G-9	

Notes:

[a] Considerations in addition to the requirements presented in the regulations.

[b] For each requirement, this column must indicate one of the following: NA for not applicable, IM for information missing, or the exact location of the information in the application.

[c] If application is deficient in an area, prepare a comment describing the deficiency, attach it to the checklist, and reference the comment in this column.